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PUBLICATION NO. 8

SIERRA POPOLUCA SPEECH

by

MARY L. FOSTER AND GEORGE M. FOSTER

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MARY L. FOSTER AND GEORGE M. FOSTER

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LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
INSTITUTE OF SOCIAL ANTHROPOLOGY,
Washington 25, D. C., June 25, 1947.

SIR: I have the honor to transmit herewith a manuscript entitled "Sierra Popoluca Speech," by Mary L. Foster and George M. Foster, and to recommend that it be published as Publication Number 8 of the Institute of Social Anthropology.

Very respectfully yours,

GEORGE M. FOSTER, *Director.*

DR. ALEXANDER WETMORE,
Secretary of the Smithsonian Institution.

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Sierra Popoluca Speech

By Mary L. Foster and George M. Foster

INTRODUCTION

In the southeastern part of the State of Veracruz, at the north end of the Isthmus of Tehuantepec, are four small groups of Indians who speak languages known to themselves and their neighbors as Popoluca. The name is from the Aztec "popoloca," applied in a deprecating sense to a number of backward Mexican groups. Four different languages exist. Texistepec Popoluca, Oluta Popoluca, and Sayula Popoluca are limited to the villages of the same name. Sierra Popoluca is spoken in about 25 villages and settlements in the mountainous area between Lake Catemaco and the Tehuantepec railway, by perhaps 10,000 persons.[1] All four languages are correctly classified in the Mixe-Zoque family, and because of the collective term "Popoluca" it usually has been assumed that they form a third basic division of this stock and that differences within this division are less pronounced than between these languages and Mixe and Zoque. Actually, the name "Popoluca" has given a false impression of linguistic relationships within the Mixe-Zoque family. In a strictly analytical sense there are but two basic divisions, Mixe and Zoque, each composed of a number of distinct, not mutually intelligible languages. Two of the Popoluca languages, Oluta and Sayula, fall in the Mixe division, along with the Western Mixe and the Guichigovi Mixe, both in Oaxaca. The other two, Sierra and Texistepec, must be classed with the Copainala and San Andres Tuxtla Zoque, in Chiapas, and with the dialects spoken in Santa Maria Chimalapa and San Miguel Chimalapa, Oaxaca, in the Isthmus of Tehuantepec. Data are as yet too limited to prevent more than this rough classification. Although the Sierra Popoluca commonly refer to themselves as Popoluca, in their own language they use the expression ʔaŋmáǰi (*the*) *word* to denote their linguistic group.

The data which form the basis of this study were gathered in the spring of 1941, when we lived for 10 weeks in Soteapan, *cabecera* of the *municipio* of the same name, which includes more than half of the Sierra Popoluca and which is the only *municipio* entirely composed of Popoluca-speaking inhabitants. The principal objective of the field trip was ethnographic research, and the linguistic work was carried on as a more or less accidental and unplanned side line. When we discovered that one of our principal informants, Leandro Pérez, at that time about 35 years of age, knew a great many stories, we decided to record as many as time permitted, in spite of our lack of formal linguistic field training. Eventually we found ourselves with about 300 pages of textual material. These data, in addition to phonetic and grammatical material which we gathered simultaneously, form the basis for this study. Although the speech here analyzed is that of Pérez, we made enough use of other linguistic informants to know that his manner of speaking is typical of Soteapan.

In the initial stages of the organization of our material Dr. Harry Hoijer aided us with many valuable suggestions. In December 1944, we returned to Soteapan for 10 days to recheck our data. During this period we had a number of stimulating conversations with Mr. Ben Elson, who at that time lived in nearby Ocotal Chico and who also was studying the language. Mr. Elson recently has published an excellent article entitled "Sierra Popoluca Syllable Structure," to which reference occasionally is made in this paper.[2] Dr. Stanley S. Newman has given generously of

[1] For more detailed information on the location of the Popoluca, see: George M. Foster. The geographical, linguistic and cultural position of the Popoluca of Veracruz. Amer. Anthrop., vol. 45, pp. 531–546. 1943.

[2] Elson, Ben. Sierra Popoluca syllable structure. Internat. Jour. Amer Linguistics, vol. 13, pp. 13–17. 1947.

his time in reading preliminary manuscripts, and has made a number of suggestions which we have tried to incorporate in the finished paper. To these persons who have aided us, we wish to express our appreciation. No one is more aware than we of the limitations inherent in our data and manuscript. We hope, however, that a sketch of a heretofore undescribed language will be of use to those persons working in the field of comparative Mexican linguistics.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols have been used:

Abbreviations

adj.	—adjective
ag.	—agentive
asp.	—aspect
at.	—attributive
ben.	—benefactive
caus.	—causative
com.	—comitative
comb.	—combining
comp.	—compound
compl.	—completive
cond.	—conditioned
conj.	—conjunction
const.	—construction
def. art.	—definite article
dem.	—demonstrative
dur.	—durative
en.	—enumerative
enc.	—enclitic
excl.	—exclusive
gen.	—generalized
ger.	—gerundial
i.	—intransitive
imp.	—imperative
inc.	—incompletive
incl.	—inclusive
ind.	—independent
indef. art.	—indefinite article
indir.	—indirective
inst.	—instrumentative
intro.	—introducing
inter.	—interrogative
lim.	—limiting, limited
lit.	—literally
loc.	—locative
modif.	—modifying, modified
neg.	—negative
nom.	—nominalizing

Abbreviations

obj.	—object
p.	—pronominal
pas.	—passive
per.	—person
part.	—particularizing
perf.	—perfective
pers.	—personal
pl.	—plural
pos.	—possessive
pred.	—predicative
pref.	—prefix
pron.	—pronoun
purp.	—purposive
quant.	—quantitative
rel.	—relative
repet.	—repetitive
res.	—resultative
sim.	—simulative
Sp.	—Spanish
st.	—stative
sub.	—subject
subj.	—subjunctive
subord.	—subordinate
suf.	—suffix
t.	—transitive
tem.	—temporal
verb.	—verbalizing

Symbols

·	(raised dot) long vowel
.	(period) syllabic division
´	(acute accent) loud stress
`	(grave accent) medial stress
*	(asterisk) verb theme
#	zero prefix, suffix
/t/	etc. phonemic recording
[t]	etc. phonetic recording

PHONOLOGY

1. PROSODIC FEATURES

1.1. Syllabic structure. Two basic types of syllables are found in Popoluca, (1) open or free and (2) closed or checked.[3] They correspond to the following patterns. (Syllabic division is indicated by a period.)

(1).	CV	hú.kum *fireplace*, ʔá·.pa *mother*
(2).	CVC	hon *bird*, ʔép.ši *bright reddish*
	CVCC	so?k *fodder*
	CVCCC	*tʌʔps *twist rope*

A syllable may begin with any consonant.

The syllabic is always a single vowel.[4]

The syllable may terminate in a vowel, consonant, or consonant cluster.

1.2. Most commonly the morpheme corresponds to the syllable. Disyllabic morphemes are also frequent, and in some cases the morpheme consists only of a consonant.

1.3. The word. The word is a minimum free form composed of one or more syllables. It may be distinguished as such on the morphophonemic level by means of patterns of stress and internal sandhi. It may be distinguished on the morphologic and syntactic levels by means of patterns of affixation and phrasal position. It exhibits the following phonetic characteristics:

All words begin with a consonant.

Medial consonant clusters may consist of as many as four consonants, of which not more than three are parts of a single syllable.

Since a syllable may not begin with a vowel, there are no vowel clusters.

A word terminates in a long or short vowel, a consonant, or a consonant cluster.

1.4. Stress. There are three levels of stress, loud (ˊ), medial (ˋ), and weak (no accent). Loud stress is characterized by the force with which it is uttered, in contrast to the other two stresses. Medial stress, uttered with slightly less force, is a displaced loud stress. Thus, ʔikká? *he killed him*, when given a final loud-stressed suffix, becomes ʔikkàʔyahtáˑ *they were killed*. Both loud and weak stress are inherent in certain morphemes, e. g., some suffixes, such as the locative -hom, are loud-stressed, while others, such as the incompletive -pa, are always weak-stressed. Noun and verb stems have an inherent loud stress. The loud stress in a word shifts under certain conditions of suffixation, compounding, and phrasal juxtaposition. Thus, kóˑbak *head* > koˑbáktʌk *hat* (kóˑbak + tʌk *house*) > koˑbàktʌkhóm *in the hat* (-hom loc. suf.) > koˑbáktʌkhòʔm íťpa *it is in the hat* (ʔíťpa *it is*). (Single syllable morphemes with inherent loud stress, such as -hom, when in isolation have not been written with stress.)

1.5. Phrase melody. Phrase melody is somewhat similar to that of English. A statement ends with a falling pitch on the final syllable. A question usually ends with a slightly rising pitch. A phrase-final syllable is accompanied by a falling pitch and followed by a pause.

1.6. Vowel length. One of the most difficult aspects of the Popoluca vowel is that of length. Both long and short vowels occur in free accented and unaccented and checked accented and unaccented syllables. Stress changes may result in the lengthening of a short vowel or the shortening of a long vowel. Our data are not adequate to permit fine phonetic distinctions, e. g., whether a stress-shortened long vowel is phonetically identical to a stress-lengthened short vowel, but the general tendencies may be pointed out.

(1) A long vowel in either a free or checked syllable which receives loud stress as a free form loses some of its length, especially in rapid speech, when through affixation the loud stress shifts to another syllable. This is particularly noticed in compounding words.

puˑčyúkmʌ *on the garbage* (puˑč- comb. form of púˑči *garbage* + yúkmʌ locator)

saˑkkáʔm *to the daughter-in-law* (saˑk- comb. form of sáˑki *daughter-in-law* + -kʌʔm loc. suf.)

čiˑčahóm *in the cradle* (čiˑča *cradle* + -hom loc. suf.)

[3] Elson lists an additional "special type" of syllable, so classed because of its infrequent occurrence. This type consists of syllables with an initial consonant cluster. His examples, which apparently include the only two clusters he has noted, are CCVC, tráy.ťi *lad* and CCVCC krúʔy.ći *quail*. Our data show two initial clusters only, both limited to the single morpheme. These are the clusters tr in the word triŋ.lõʔkaɛ́ a kind of witch, and kw in the form ʔiŋ.kwás.tʌk *both of you* (the syllable kwʌs appears in several contexts) <ʔiñ- 2d. per. pos. p. pref. + ku- numerical prefix + wʌs stem of "two" + -tʌk numerical suffix added only to derivatives of "two." On the phonetic level, at least, the u of the prefix ku is pronounced so lightly, if at all, that the cluster appears to exist. Since this apparently is a unique case, we were unable to devise a test to determine the true phonemic nature of this construction. Our data suggest the strong possibility that r occurs in Popoluca only in loan words, except in one case (2.9) in which it varies freely with n. Since except for the cluster kw, the true phonemic nature of which is uncertain, all initial clusters have r as the second consonant, we have hesitated to set up an additional syllable type. Elson gives the form ruˑtuhóˑpkʌy *having bumps on the skin*, to illustrate a syllable-initial r. Hence, it may well be that r is a true, though deficient, Popoluca phoneme.

[4] The nasals and y occur as nonphonemic syllabics (2.6, 2.7).

(2) A short stressed vowel in a checked syllable tends to become phonetically long when, through morphological processes it comes to occupy a syllable final word medial position.

ɸákʌ *leave it!* (*ɸak *leave something*)
míñʌ *come!* (*miñ *come*)
pétʌ *sweep!* (*pet *sweep*)

2. CONSONANTS

2.1. The consonantal system of Popoluca may be represented as follows:

	Bilabial	*Alveolar*	*Palato-alveolar*	*Velar*	*Glottal*
Stops:					
Voiceless	p	t	ť	k	ʔ
Voiced	b	d	ď	g	
Affricates		ɸ	č		
Spirants		s	š		h
Nasals	m	n	ñ	η	
Semivowels	w		y		
Lateral		l			
Flap		r			

DESCRIPTION OF CONSONANTS

2.2. Stops. The voiceless stops p, t, and k are at bilabial, alveolar, and velar points of articulation respectively. The palato-alveolar ť is blade-palato-alveolar in point of articulation, the tip of the tongue turns down. All are unaspirated except in syllable final position, e. g., mʌk *fog*, hʌp *mouth*, ʔampát *I met.*

The quality of the glottal stop depends upon its position in the word and syllable. In word initial it is unaspirated and almost inaudible, e. g., ʔá·či *uncle, older brother*, ʔé·ši *crab*, ʔóma *fog*, ʔúšpiñ *alligator.*

In syllable initial and word medial position the glottal is clearly audible, e. g., má.ʔa *deer*, ná.ʔa *chicle*, pó.ʔa *piece.*

In syllable medial position preceding k the glottal closure is practically simultaneous with that of the stop. Hence, in this position it is often difficult to hear, e. g., soʔk *grass fodder* (Sp. "zacate"), muʔk *grass.* In syllable medial position preceding any other consonant it is clearly audible, e. g., huʔη *owl*, *heʔn *dig.*

In syllable final position followed by another syllable the glottal is so strongly aspirated that the preceding vowel reappears as a voiced or unvoiced partial rearticulation following the glottal, e. g.:

[káʔʌ.ba] *he dies* (-pa inc. suf.)_____ /káʔba/
[kʌ́ʔʌ.tʌk] *ladder* (kʌʔ + tʌk *house*)___ /kʌ́ʔtʌk/
[tʌ́ʔʌ.pʌ] *fish*_____ /tʌ́ʔpʌ/
[méʔe.ši] *wall*_____ /méʔši/
[háʔa.yuk] *younger sibling*_____ /háʔyuk/

In word final position the glottal is strongly aspirated, e. g., nʌʔ *water*, yuʔ *hunger*, kʌʔ *hand*, ɸaʔ *stone*, *kaʔ *die.*

Syllables of the form consonant short vowel, when final in an utterance, are always pronounced CVʔ. This inorganic glottal disappears when the syllable is in included position, whereas a true glottal remains.

ʔá·či [ʔá·čiʔ] uncle, ʔaʔná·či pútpa *my uncle goes out*
*čiʔ *give*, ʔančíʔ péʔm *I give it to that one*

(Throughout this grammar and the accompanying text the inorganic glottal, though phonemic, will be omitted.)

2.3. The voiced stops b, d, ď, and g are unaspirated and lenis. Their occurrence is restricted to word-medial syllable-initial position except for ď which is also word initial in the single morpheme ďa *no.*

2.4. The voiceless affricates ɸ and č correspond to the English values in "hits" and "church" respectively.

2.5. Spirants. The voiceless spirants s and š are at alveolar and palato-alveolar points respectively. The voiceless spirant h most frequently is an aspiration (cf. English "hat"). In syllable final position following a vowel it is more strongly spirantal, e. g., tuh *rain*, wóhno *crane.*

2.6. Nasals. The voiced nasals m, n, ñ, and η are at bilabial, alveolar, palato-alveolar, and velar points of articulation respectively. In word final position they are aspirated, e. g., ham *lime*, hon *bird*, ɸa·ñ *serpent*, huʔη *owl.* In syllable final position following a glottal, as in the example huʔη, a nasal is given syllabic value. For descriptive purposes, however, since nonnasals also may occupy this final position, the syllabic quality of the nasals is considered nonphonemic.[5]

2.7. Semivowels. Bilabial w is voiced, rounded, slightly aspirated. Palato-alveolar y in word or phrase final ends in a very strong aspiration or voiceless off-glide, e. g., puy *foot*, ɸoy *remedy*, way *hair.* Following a glottal in the syllable form CVʔC y is phonetically syllabic, e. g., hoʔy *become angry.* It is, however, treated as nonsyllabic on the phonemic level for the reason indicated in 2.6.

[5] Elson has an excellent treatment of this phenomenon. (See p. 13 of citation given in footnote 2.)

2.8. Lateral. The voiced lateral l occurs primarily in loan words, either Spanish or Aztec, e. g., lúpuhti *wolf* (Sp. "lobo"), paléna *brown sugar* (Sp. "panela"), túlin *tule* (Aztec), ťagálin *spider* (Aztec?).

2.9. Flap. The alveolar flap r corresponds to the Spanish single flap r. It is found principally in loan words or in Popoluca words and constructions that are atypical in nature. Its very limited occurrence in initial clusters already has been mentioned (p. 3, ftn. 3). In addition, it varies freely with n in the sequence of transitive pronominal prefix plus the benefactive prefix ?aŋ- (6.5), the causative prefix ?ak- (6.6) and the comitative prefix na- (6.7).

?anaŋmátpa or ?araŋmátpa *I speak with him*
?ananʌ́kpa or ?aranʌ́kpa *I carry something*
?ininʌ́kpa or ?irinʌ́kpa *you carry something*
?anakká?ba or ?arakká?ba *I kill him*

These constructions in many respects do not follow the morphophonemic rules which govern other apparently similar phenomena (4.21).

2.10. When consonants dissimilar in points of articulation follow the nasals n, ñ, and ŋ, a voicing in the form of the indefinite or shwa vowel ə tends to occur.

[kʌ́nəpa] <*kʌn *smell* + -pa inc. suf.___ /kʌ́npa/
[sʌ́ŋəñi] *day*_____ /sʌ́ŋñi/
[wíñəpak] forehead_____ /wíñpak/
[ká?nəpu] *egg*_____ /ká?npu/

2.11. Geminate clusters excepting ? actualize as long consonants.

?ančihhákpa *I throw across* (*čih *throw* + *hak *cross*)
yo·mmánʌk *girl* (yo·m- comb. form of yó·mo *woman*, + mánʌk *child*)
miññé? *he has come* (*miñ *come* + -ne? perf. suf.)
?àpiččí·hi *porcupine* (?ápič thorn + čí·hi fox)
kuyyúkmʌ *up in the tree* (kuy *tree* + yúkmʌ locator)
wʌ́ťťʌ́k *large house* (wʌť- comb. form of wʌ́ťi *big*, + tʌk *house*)
?ikká? *he killed him* (?i- 3d per. t.p. pref. + ?ak- caus. pref. + *ka? *kill* + # compl. suf.)
ku?ttá·p *it is eaten* (*ku?t *eat* + -ta· pas. suf. + -p inc. suf.)
?anhéppa *I scratch it* (*hep *scratch* + -pa inc. suf.)

2.12. Consonant distribution. All consonants occur in syllable initial position. p, k, and ? are the only consonants found in syllable medial position. All consonants except the voiced stops b, d, ď, and g, and the alveolars l and r, are found in syllable final position.

Clusters of consonants observed in syllable final position are ps, ks, ?ps, ?ks, and ? plus a voiceless stop, an affricate, a nasal, or the semivowel y.

The clusters kw, kr, and tr are the only observed cases of syllable initial clusters.

Consonants in word initial and final position follow syllabic rules except that b, d, g, and ŋ are not found initially. Word medial clusters do not consist of more than four consonants, and of these never more than three are in the same syllable. Permissible patterns for word medial clusters are -VC.CV-, -VCC.CV-, -VCCC.CV-, and -VC.CCV-. Word medial geminate clusters of consonants may be formed by the voiceless stops, the nasals (except for ŋ), and by h, č, š, and y.

3. VOWELS

3.1. Vowel phonemes occur in two qualities, long and short. The distinctiveness of length as a phonemic feature of the vowel is shown by such minimal pairs as pok *gourd container* and po·k *cornstalk*, ?ákpak *a species of tree* and ?á·kpak *cheek bone*, kʌŋné? *it has ripened* and kʌ·ŋné? *he was afraid*, míši *cat* and mí·ši *Oaxaqueno* (from "Mixe").

Vowel length varies considerably as the result of stress shifts (1.6) and morphophonemic changes (4.18). Because of the relatively few minimal pairs encountered it was not possible in most cases to subject words characterized by absolutely defined vowel length to tests which would have determined the behavior of the length aspect of vowels under varying conditions. In some cases, doubtless, words we have written with a long vowel actually represent short vowels recorded in contexts in which they appeared in a lengthened form, and vice versa. Admittedly our notes leave much to be desired on this very important point.

3.2. Popoluca vowels may be represented phonemically as follows:

i, i·	u, u·
e, e·	ʌ, ʌ·
a, a·	o, o·

3.3. i and i· are high, front, rather close. They vary to open when syllable medial in checked syllables preceding nasals and š, or when preceded by p or ? and followed by k.

*?iť *be*, pí·ñʌh *horse fly*, píštʌk *flea*, *?i·š *see*, píkši *bow*, ?ikkó·ñ *he made him sit down*

3.4. e and e· are mid, front, unrounded. In most cases rather open, they become close when preceding y.

ɸem *urine*, hé·pe *tree gourd*, ɸapméyñʌ? *ocean* (archaic form), ?éya *also*

3.5. a and a· are low, central, unrounded, and constant in value. They have the approximate value of a in German "Mann."

pak *bone*, ?á·či *uncle*, čáhka *deaf mute*

3.6. u and u· are high, back, moderately close, rounded. They are somewhat more open preceding a nasal.

mu?k *grass*, hú·ki *cigarette*, tum *one*

3.7. ʌ and ʌ· are central, tending to back, open, unrounded, slightly higher than double o in English "took." The lip position is more spread than for any English vowel.

tʌk *house*, nʌ? *water*, wʌstén *two*

3.8. o and o· are mid, back, semirounded. In free syllables they are rather close unless in nexus with k, when they are open; in checked syllables they tend to be open unless in nexus with y when they are close.

?óma *fog*, čó·mo *woman*, só·ki *snail*, kó·so *knee*, hos *cave*, *ho·t *scratch*, ɸógoy *spirit*, hóymʌ *tomorrow*

3.9. Vowel distribution. There are no initial vowels in syllables.

All vowels may occur in word medial and final positions.

There are no vowel clusters. When through morphological processes two vowels fall in contiguous positions, an h arises to maintain vocalic identity.

hú·hi *roar* (*hu· *roar* + -i nom. suf.)
yo·šá·hi *work* (*yo·šá· *work* + -i)
ya?čá·hi *necessity* (*ya?čá· *suffer* + -i)
yo·šá·hʌ *work!* (*yo·šá· *work* + -ʌ imp. suf.)

3.10. Limitations between consonants and vowels in syllables.

With the consonant in syllable initial position: d does not precede i; d, l, and r have not been observed preceding e; l and r have not been observed preceding ʌ.

With the consonant in syllable final position: ɸ, s, y, l, and r have not been observed following i; ť, č, w, r, and l have not been observed following e; ť, š, and w have not been observed following a; l and r have not been observed following o; ñ, l, and r have not been observed following u; ť, ñ, w, l, and r have not been observed following ʌ. Consonantal clusters and the glottal stop do not follow long vowels.

With rare exceptions which seem to follow no rule, the alveolars are not found in nexus with i or y; their place is taken by the palato-alveolar forms.

wó·ñi *girl*, číkiñ *a skin disease* (Sp. "pinto"), ťiñ *excrement*, *?iť *be*, šiš *bull*, čí·ča *cradle* [6]

Examples of alveolars in nexus with i are as follows: mákti *a supernatural female wood spirit*, tí·ti *civilized person*, (Sp. "gente de razon"), šíkuhti *a type of bee*, má?ksi *beforehand*, ɸiɸímat *enchanted place*. Spanish loan words often show alveolars in nexus with i, e. g., anímat *animal*, sintirón *cinturon*, así *asi*.

4. MORPHOPHONEMICS

4.1. On the morphophonemic level Popoluca is characterized by extensive sandhi phenomena. Most of this is of the type known as internal or word sandhi, i. e., morphophonemic changes which occur when grammatical elements are combined into words. In some cases the sandhi phenomena are also external, or phrasal in nature, i. e., the morphophonemic changes occur both when grammatical elements are combined into words and when words are combined into phrases. The sandhi processes most commonly used in Popoluca are metathesis, syllabic division changes, palatalization, consonant changes, consonant syncope, vocalic changes, and vocalic syncope. The strictly internal phenomena are first discussed, and then those that are also external.

INTERNAL SANDHI

4.2. Changes in syllabic division. Certain morphological and phonological processes cause changes in the syllabic division of many words. Thus, when morphemes of the pattern -V, -VC,

[6] When ñ (or n[?]) follows i preceding a palato-alveolar, or when it is the final consonant of a closed syllable of the pattern čiñ, šiñ or tiñ, it usually is only slightly palatalized, but may vary from almost no palatalization to complete palatalization. This phonetic range causes some question as to how n in such cases should be interpreted phonemically. Since ñ preceding an alveolar tends to be very weakly palatalized, and in some cases not at all (4.5), it appears that with respect to palatalization ñ is phonetically "weaker" than the other palato-alveolar forms, to which some of the palatalizing quality assimilates. Hence, it is assumed that [n]~[ñ] is /ñ/.

nánči/ñ/ varies from nánči[n] to nánči [ñ]
pá·ši/ñ/ varies from pá·ši[n] to pá·ši[ñ]
ti/ñ/ varies from ti[n] to ti[ñ]
kí/ñ/či varies from kí[n]či to kí[ñ]či

-?V, or -?VC are added to stems ending in a consonant, the final consonant becomes the first phoneme of a new syllable. In the case of those morphemes with glottal initial, the glottal either metathesizes (4.23) or disappears (4.25).

hʌ́·ši *thought, idea* (*hʌ·s *think* + -i nom. suf.)
há.ka *piece* (*hak *break* + -a nom. suf.)
kíp.sʌ *measuring stick* (*kips *measure* + -ʌ nom. suf.)
hé.mum *just there* (hem *there* + -um enc.)
?a.ku.ǐ?.ñá·p *I am becoming lazy* (ku.ǐíñ lazy + -?a· verb. suf. + -p inc. suf.)
híp.saŋ *fire brand* (*hips *burn* + -aŋ nom. suf.)

4.3. Palatalization. One of the outstanding phonological characteristics of Popoluca is the marked palatalizing effect of i and y when bearing certain relationships within the word to the alveolars t, ɕ, s, and n. As a general rule these alveolars assimilate to the palato-alveolar forms ť, č, š, and ñ under the following conditions: (1) when preceded or followed by i; (2) when preceded by i?; (3) when preceded by y.

(1) ?aŋmáǐi *word* (*?aŋmát *speak* + -i nom. suf.)
?iǐʌ́k *his house* (?i- pos. p. pref. + tʌk *house*)
?ičá·mi *his load* (?i- + ɕʌ́·mi *load*)
hʌ́·ši *thought* (*hʌ·s *think* + -i nom. suf.)
?iše?t *he fried it* (?i- t. p. pref. + *se?t *fry*)
miñá·spa *you pass* (mi- i. p. pref. + *na·s *pass* + -pa inc. suf.)
(2) ?anči?ǐá?mpa *you* (pl.) *give it to me* (?an- t. p. pref. + *či? *give* + -ta?m pl. suf. + -pa)
?anči?ñé? *I have given it to him* (?an- t. p. pref. + *či? + -ne? perf. suf.)
(3) kúyǐʌm *avocado* (kuy *tree* + tʌm *fruit*)
hayčʌ́·ši *boy* (hay- comb. form of háya *male* + ɕʌ́·ši *child*)
ɕáyšʌk *string bean* (ɕay *vine* + sʌk *bean*)
?i·škuyñʌ́? *tear* (?i·škuy *eye* + nʌ? *water*)

4.4. Limitations to the palatalization rule. When n would be in syllable final position, but because of metathesis becomes initial in the following syllable preceding i, it does not palatalize.

?a?nǐ·špa *I see* (*him, her, it*) (?an- t. p. pref. + *?i·š *see* + -pa inc. suf.)
wʌ?à·p ta?nǐť *we are able to live* (*wʌ?á· *be able* + -p inc. suf. + tan- t. p. pref. + *?iť *be, live.*)

When n falls between two i's it does not palatalize. Furthermore, when ñ falls between two i's it assimilates to the alveolar form. These patterns have been observed only in the case of constructions involving the comitative (6.7), causative (6.6), and benefactive (6.5) verbal prefixes, and the simulative noun prefix (10.5). Also, the second i in these constructions does not palatalize alveolars which may follow. Additional data on these morphemes are given in 4.21.

?ininúkpa *he brings it* (?i- t.p.pref. + na- com. pref. + *nuk *arrive* + -pa inc. suf.)
?inisé·tum *he has just returned with him* (*or it*) (?i- + na- + *se·t *return* + -um enc. *just*)
?inikkí?mpa *you pull him up* (?iñ- t.p.pref. + ?ak- caus. pref. + *ki?m *go up* + -pa)
?iniŋmát *you spoke with him* (?iñ- + ?aŋ- ben. pref. + mat stem of *?aŋmát *speak with*)

4.5. A palato-alveolar preceding an alveolar usually causes palatalization of the alveolar. When ñ is a part of the cluster its palatalization often is weakened, sometimes to the point of entirely disappearing.

?ʌ́čťam *we* (?ʌč *I* + -tam pl. suf.)
*piñčúks *pinch lightly* (*piñ *touch lightly* + *ɕuks *pinch*)
?iñťʌ́k *your house* (?iñ-pos. p. pref. + tʌk *house*)

4.6. Consonant change. The phoneme ñ becomes ŋ before k. But n changes to ŋ before k only when the syllable contains a vowel other than ʌ or u. When the syllabic is ʌ or u, the following n (or ?n cluster) remains unchanged before k. In this latter case there is a tendency to pronounce the indefinite shwa vowel between the two consonants. This is a part of the rule governing relationships between consonants with dissimilar points of articulation (2.10).

?iŋkómpa *you will fill it* (?iñ- t. p. pref. + *kom *fill* + -pa inc. suf.)
?aŋkʌ́·pi *my firewood* (?an- pos. p. pref. + kʌ́·pi *firewood*)

But

kánkʌ? *neck* is pronounced [kánəkʌ?]
tʌ́?nkuy *branding iron* is pronounced [tʌ́?nəkuy]
kú?nki *squirrel* is pronounced [kú?nəki?]

4.7. Before m or p, the nasals n and ñ of the pronominal prefixes of nouns and verbs become m.

?ammóya *my flower* (?an- 1st. per. pos. p. pref. + móya *flower*)
?immánʌk *your child* (?iñ- pos. p. pref. + mánʌk *child*)
?ampát *I found it* (?an- t. p. pref. + *pat *find*)
?impʌ́k *you took it* (?iñ- t. p. pref. + *pʌk *take, get*)

4.8. Before y and n the voiceless stops t and ť become h.

wahñà háyi *many words* (waǐ- comb. form of wáǐi *many* + na- en. suf. + háyi *word*)
se·hyáhpa *they return* (*sé·t *return*, -yah pl. suf.)
?ihyáh *there are* (*?iǐ *be*, + -yah)
se·hné? *he has returned* (*se·t return + -ne? perf. suf.)
aŋwahné? *I have done it* (*wat *do*)

4.9. Consonant syncope. The possessive verbalizing suffix -ʔʌʔy (6.12), the repetitive suffix -ʔoʔy (6.14), the indirective suffix -ʔaʔy (6.17), the suffixes -ʔʌʔy and -ʔaʔy also in combined affixation (6.18–6.23), and the verbal pluralizing suffix -taʔm (8.4) fall in a position of loud stress in a majority of their occurrences. When they fall in a position of weak stress the medial glottal disappears. The initial glottal of those with initial glottal disappears (4.25) or metathesizes (4.23).

ʔaɳ- + *kom *fill* + -ʔʌʔy >*ʔaɳkoʔmáʔy *marry* + -neʔ perf. suf.>ʔaɳkòʔmʌyñéʔ *I have married*
*kuʔt *eat* + -ʔoʔy >*kuʔdóʔy *eat people* + -páʔap ag. suf.> kùʔdoypáʔap *he who eats people*
*top *take out* + -ʔaʔy> *tobáʔy *take it out of something* + -ta· pas. suf. >tòbayt̆á· *it was taken out of something*
mi- + *kuʔt (*eat*) + -taʔm >mikuʔttáʔm *he ate you* (pl.) + ta· >mikùʔttamtá· *you were eaten*

4.10. The possessive verbalizing suffix -ʔʌʔy (6.12), the repetitive suffix -ʔoʔy (6.14), and the indirective suffix -ʔaʔy (6.17) when followed by the incompletive suffix -p (8.9) as an occasional free variant drop the final ʔy.

hàwaʔɳáp *he has a fever* (háwaɳ *fever* + -ʔʌʔy + -p)
tʌ̀ksob išʌ́ʔ *he is beating* (a drum) (*tʌks *hit* + -ʔoʔy + -p)
ʔiñʌʔmápt̆im *he then said to him* (ʔi- t. p. pref. + *nʌm *say* + -ʔaʔy + -p)

4.11. The perfective suffix -neʔ (8.3) and the instrumentative compounding theme -kaʔ (6.29) fall in a stressed position in a great majority of their occurrences. When they fall in an unstressed position the final glottal disappears. The e of -neʔ often assimilates to i (4.17).

nʌkniyáh *they have gone* (# i. p. pref. + *nʌk *go* + -neʔ + -yah pl. suf.)
ʔaʔnàʔmnitáʔm *we have looked at it* (ʔan- t. p. pref. + *ʔaʔm *look* + -neʔ + -taʔm pl. suf.)
ʔikò·ñkanéʔ tùm serpiénte *he has seated himself on a serpent* (ʔi- t. p. pref. + *ko· ñ *sit* + -kaʔ + -neʔ + tùm serpiénte *a serpent* [Sp.])
tùm oĭmʌ́či ʔammòhkatáʔm *it was a bet that we had begun* (tùm oĭmʌ́či *a bet* + ʔan- t. p. pref. + *moh *begin* + -kaʔ + -taʔm)

4.12. Under certain circumstances, not all of which can be precisely defined, h is either very weakly aspirated, or disappears entirely. When syllable initial and following a stop, especially k, h often follows this pattern.

kà·pt̆ʌkóm *in the house of arrows* (ká·pt̆ʌk arrow house + -hom loc. suf.)
ʔokáʔ·tuɳ *godfather* (ʔok- nominal pref. + háʔ·tuɳ *father*)
ʔanʌ́kpa he·póm *I go among the tree gourds* (ʔanʌ́kpa *I go* + he·p- comb. form of hép·e *tree gourd* [Sp. "jícara"] + -hom loc. suf.)
huktóm *in the fire* (hukt- comb. form of húktu *fire* + -hom)
wʌd̆áya *husband, old man* (wʌt̆- comb. form of wʌ́t̆i *big* + háya *male*)
hosóm *in the cave* (hos *cave* + -hom)
hʌmñóm *in the forest* (hʌmñ- comb. form of hámñi *forest* (Sp. *monte*) + -hom)
kuyám *ashes* (kuy *tree* + ham *lime* [Sp. "cal"])
*čiñʌ́k *throw in a definite direction* (*čih *throw* + *nʌk *go*)
t̆íños *anus* (t̆iñ *excrement* + hos *hole, cave*)

4.13. The verbal pluralizing suffix -taʔm (8.4), when in word final position, as a free variant often loses the final m.

ʔakiʔmtáʔ or ʔakiʔmtáʔm *we climbed* (ʔa- i. p. pref. + *kiʔm *climb, go up* + -taʔm pl. suf.)
mišeˑttáʔ or mišeˑttáʔm *you* (pl.) *returned* (mi- i. p. pref. + *seˑt *return* + -taʔm)

4.14. When geminate clusters of ʔ occur the cluster reduces to one phoneme.

kʌʔáˑpa *thumb* (kʌʔ *hand* + ʔáˑpa *mother*)
nʌʔíˑškuy *spring* (Sp. "ojo de agua") (nʌʔ *water* + ʔíˑškuy *eye*)
ɸaʔáˑpa *metate* (ɸaʔ *stone* + ʔáˑpa *mother*)
ɸuʔéši *tarantula* (ɸuʔ *night* + ʔési *crab*)

4.15. Special voicing rules for p. The incompletive suffix -pa when following a verb theme ending in Vʔ becomes -ba.

nóʔba *it burns* (*noʔ *burn*)
ʔampóʔba *I break* it (*poʔ *break*)
ʔakáʔba *I die* (*kaʔ *die*)

4.16. Voiceless stops have been observed to voice consistently in a number of cases which appear to follow no general rule beyond the fact that, with one exception, they fall between vowels. The most common cases noted are as follows.

nʌ́gʌ *go!* (*nʌk *go* + -ʌ imp. suf.)
wʌd̆áya *husband* (wʌt̆- comb. form of wʌ́t̆i *big* + háya *male*)
wʌ́·bʌk *good* (wʌ· *good* + pʌk enc.)
tè· dawíʔki *let's eat!* (teˑ *let's!* + tawíʔki ger. verb form of *wiʔk *eat*)
éybʌk *again* (éya *also* + pʌk enc.)

4.17. Vocalic changes. When the perfective suffix -neʔ is followed by any suffix requiring a shift of accent away from the -neʔ, the e varies freely with i. Furthermore, neither the n nor a conso-

nant following the i palatalize following the usual palatalizing rules (4.3).

ʔiʔìˑšniyáh *they have seen it* (ʔi- t. p. pref. + *ʔiˑš *see* + -neʔ perf. suf. + -yah pl. suf.)
nʌ̀kniyáh *they have gone* (# i. p. pref. + *nʌk *go* + -neʔ + -yah)
ʔaʔnàʔmnitáʔm *we have looked at it* (ʔan- t. p. pref. + *ʔaʔm *look* + -neʔ + -taʔm pl. suf.)

4.18. Reduction of vowel length. Since a long vowel cannot precede a ʔ (3.10), when through metathesis a ʔ is caused to follow a long vowel, the vowel reduces to the short form.

ʔipiʔŋáʔy *he gathered it for someone* (*piˑŋ *gather*)
aŋkusuʔnáʔypa *I keep something* (*suˑn *want*)

4.19. Vocalic syncope. Nouns and attributives which end in a vowel usually lose the vowel when followed by another morpheme. This is not invariably the case, and no hard and fast rule is apparent from our notes. A few nouns have two distinct combining forms, one which maintains the final vowel, and the other which loses it. In the final analysis each noun and attributive must be considered as a unique form with unique characteristics.

ɸʌˑwhóm *among the tobacco* (ɸáˑwi *tobacco* + -hom loc. suf.)
ɸòˑwihóm *among the mojarra* (Sp.) (ɸóˑwi *mojarra* + -hom)
tʌʔphóm *among the fish* (táʔpʌ fish + -hom)
ʔuksyúkmʌ *up in the cloud* (ʔúksʌ *cloud* + yúkmʌ locator)
kopkúkmʌ *in the middle of the savanna* (kóˑpa *savanna* + kúkmʌ)
kóˑso *knee* has the following forms:
koˑsté·ñ *kneel* (kóˑso + *teˑñ *stop*)
koˑspút *sprout at the knee* (kóˑso + *put *come out*)
kòˑsoyúkmʌ *on the knee* (kóˑso + yúkmʌ)
kòˑsokáʔak *boot* (kóˑso + káʔak *shoe*)

4.20. Vocalic syncope and palatalization. When words or syllables with the alveolars t, s or n in initial position are combined after words or syllables ending in i, the alveolars palatalize and the i drops out, to produce the combining form.

káˑpt̆ʌk *house of arrows* (káˑpi *arrow* + tʌk *house*)
kaˑpñáʔ *Arrow Water* (proper noun) (káˑpi + nʌʔ *water*)
wóˑñt̆am *girls* (wóˑñi *girl* + -tam pl. suf.)
ʔʌ́kšt̆uh *hail stones* (ʔʌ́kši *corn grains* + tuh *rain*)

4.21. The noun prefix ʔaŋ- (10.5) and the thematic verbal prefixes ʔaŋ- (6.5), ʔak- (6.6) and na- (6.7), when preceded by the pronominal prefixes (7.2, 7.5) undergo certain changes which do not follow the morphophonemic rules which govern other apparently similar phenomena. The phenomena involved are failure of the glottal to metathesize with preceding nasals, failure of i to palatalize alveolars, consonantic syncope, reduction of geminant clusters, and vocalic assimilation. Since these phenomena are limited to the morphemes in question, they are treated as aspects of one problem rather than separately in the several sections involved.

The following chart shows the pronominal prefix, the noun or verb prefix, the resultant combined form, the form which might be expected if the general rules were followed, and the paragraph number of the general rule. The verbal prefix ʔak- is not used in the chart, since it behaves in exactly the same manner as ʔaŋ-. Also see 4.4 for data bearing on these phenomena.

Pronominal prefix	*Noun or verb prefix*	*Resultant combined form*	*Expectable combined form*	*General rule*
ʔa-(ta-)	+ ʔaŋ-	> ʔaŋ-	ʔaʔaŋ-	4. 25
ʔan-(tan-man-)	+ ʔaŋ-	> ʔanaŋ-	ʔaʔnaŋ-	4. 23
" "	+ na-	> ʔana-	ʔanna-	2. 11
ʔiñ-	+ ʔaŋ-	> ʔiniŋ-	ʔiʔñaŋ-	4. 23
"	+ na-	> ʔini-	ʔiñña-	2. 11, 4. 5
mi-	+ ʔaŋ	> miŋ-	miʔaŋ-	4. 25
"	+ na-	> mini-	miña-	4. 3
ʔi-	+ ʔaŋ-	> ʔiŋ-	ʔiʔaŋ-	4. 25
"	+ na-	> ʔini-	ʔiña-	4. 3

4.22. Stress patterns and shifts. Loud or weak stress is, as has been said (1.4), an inherent feature of certain morphemes. Word classes are characterized by stress position as well as by morphological considerations. Nouns, stative verbs, attributives, pronouns, and enumeratives of more than one syllable, with certain exceptions, have a loud stress on the penultimate syllable, while active verbs have a loud stress on the final syllable. Some conjunctions such as ʔiga *that*, and the negative attributive ăa, except when in isolation, are given weak stress.

The greatest variation in noun stress occurs in the case of secondary, compound nouns. In the case of compounds composed of noun and noun loud stress may occur on the penult (of disyllabic nouns) or final syllable (of monosyllabic nouns) of the final member of the compound, and a medial stress on the inherently stressed syllable of the first member, as ʔiˑškuyñáʔ *tears* (ʔíˑškuy *eye* + nʌʔ *water*), or a loud stress may occur on the penult of the compound form, e. g., koˑbáktʌk *hat* (kóˑbak

head + tʌk *house*). When a secondary noun stem is composed of attributive and noun, loud stress falls on the noun penult and medial stress on the attributive penult, e. g. šùťunáʔ (šúťu *small* + nʌʔ *water*).

Certain affixes of nouns, attributives and enumeratives are always weakly stressed, causing the loud stress to fall as it would in the unaffixed word. These are:

The thematic noun prefixes ma- and way-, e. g., maɕáʔ *star*, wayɕáʔ *pebble*, masáwa *hurricane*.

The possessive prenominal prefixes, e. g., ʔantʌ́k *my house*, ʔikʌ́ʔ *his hand*.

The thematic suffix -ti, e. g., lúpuhti *wolf*, šúnuhti *a supernatural spirit*.

The plural nonthematic suffixes -tam and -yah, e. g., náwahyah *witches*, mánʌktam *sons*.

The adverbial enumerative suffix -kʌy, e. g., máktaskʌy *four times*.

Certain noun and enumerative nonthematic suffixes have an inherent loud stress. These include:

The locative suffixes -kʌʔm, -hom, -ʔaŋkʌ́ʔm and -ʔaŋhóm, the locative nominalizing suffix -kom, and the enumerative suffixes -ten and -na, e. g., kuyhóm *in the tree*, tʌkkʌ́ʔm *at the house*, moŋkóm *sleeping place*, wʌstén *two*, wʌsná *two*.

A few nonthematic verb suffixes have inherent weak stress, causing the loud stress to fall as it would on the unsuffixed word. These are the incompletive suffix -pa, the imperative suffix -ʌ, the subjunctive suffix -ʔiñ, and the gerundial suffix -i, e. g., ʔaʔéɕpa *I dance*, nágʌ *go!*, yúʔmiñ *that it may boil*, ʔéči *dancing*.

All of the enclitics have an inherent weak stress and thus when attached to a word do not cause the loud stress of the word to shift.

All active verb stems (on the final syllable) and noun stems (on the penult) have an inherent loud stress, so that when through affixation the loud stress is shifted away from the stem so that one or more syllables intervene, the stem receives a medial stress, e. g., nòʔyahtʌ́·p *they will be burned* (*noʔ stem of verb "burn"). Noun compounds of inflected verb plus noun (10.23) follow the rules of phrase stress (4.29), not word stress.

INTERNAL AND EXTERNAL SANDHI

4.23. Metathesis. When a nasal, y, l, or r is followed by a glottal, the resultant cluster undergoes metathesis.

kùʔn ičʌ́·mi *with his burden* (kun *with* [Sp. "con"] + ʔi- pos. p. pref. + ɕʌ́·mi *burden*)

tùʔm antʌ́k *my house* (tum ind. art. + ʔan- pos. p. pref. + tʌk *house*)

ʔanaʔŋáʔm *I waited for him* (ʔan- t. p. pref. + ʔaŋ- ben. pref. + *ʔaʔm *look*)

puʔyʌ́·pa *big toe* (lit. "foot-mother") (puy *foot* + ʔʌ́·pa *mother*)

màʔl iŋwát *you did it badly* (mal *bad* [Sp.] + ʔiñ- t. p. pref. + *wat *do*)

láma ʔraŋnáka *at the edge of the ocean* (lámar *ocean* [Sp.] + ʔaŋnáka *edge*)

4.24. Consonantic changes. Before w, the nasals n, ñ, and m become ŋ.

ʔaŋwíh *I untied it* (ʔan- t. p. pref. + *wih *untie*)

ʔiŋwí·ši *your beard* (ʔiñ- pos. p. pref. + wí·ši *beard*)

ďaŋ wʌʔʌ́· *he could no longer* (ďa neg. at. + -m enc. + *wʌ̀ʔʌ́· *be able*)

4.25. Consonantic syncope. When a syllable ending in a voiceless consonant is followed by ʔ the glottal is lost. If the syllable ends in a vowel the glottal remains.

ʔʌ̀č ačíŋ *I bathed* (ʔʌč *I* + ʔačíŋ *I bathed*)

mìč iŋkíť *you broke it* (mič *you* + ʔiŋkíť *you broke it*)

ʔiʔí·š *he saw it* (ʔi- t. p. pref. + *ʔí·š *see*)

4.26. When a word or syllable ending in a voiceless stop is followed by a word or syllable beginning with ʔV, voicing of the stop occurs. The glottal drops out (4.25).

hùʔďíť *where is it* (huʔť *where* + ʔiť *it is*)

màʔʌdʌ́·pa *mother-in-law* (mʌ́ʔʌt- *in-law* + ʔʌ́·pa *mother*) sʌ́ʔʌbam *right now* (sʌ́ʔʌp *now* + -ʔam enc.)

tʌ̀g ihʌ́p *door* (tʌk *house* + ʔi- pos. p. pref. + hʌp *mouth*)

mogáy *corn husk* (mok *maize* + ʔay *leaf*)

ʔantobáʔypa *I forcibly take out something* (ʔan- t. p. pref. + *tóp *take out* + -ʔaʔy indir. suf. + -pa inc. suf.)

mànʌgʌ́ʔy *conccive a child, possess a child* (mánʌk *child* + -ʔʌʔy verb. suf.)

4.27. In certain syntactical situations a single syllable will span two words. When words beginning with ʔV- follow those ending in consonants, the glottal either metathesizes, as in the case of nasals and y, r, and l (4.23), or disappears (4.25). In both cases the final consonant of the first word becomes the initial phoneme of a syllable which is split between two words.

kùʔ.n i.čʌ́·.mi *with his burden* (kun *with* [Sp. "con"] + ʔi- pos. p. pref. + ɕʌ́·.mi *burden*)

tùʔ.m an.tʌ́k *my house* (tum indef. art. + ʔan- pos. p. pref. + tʌk *house*)

ʔʌ̀.č a.číñ *I bathed* (ʔʌč *I* + ʔa- i. p. pref. + *čiñ *bathe*)

hóʔ.n i.hʌ́p *bird's beak* (hon *bird* + ʔi- pos. p. pref. + hʌp *mouth*)

4.28. A tendency has been noted in the case of syllables consisting of pa or ba, when followed by ?i, for the a to assimilate to the quality of i. Our data do not permit more accurate definition of the conditions under which this phenomenon occurs.

ďi ?ihódoŋ *he doesn't know it* (ďa neg. at. + ?ihódoŋ *he knows it*)
si ďi ?iŋkupʌ́kpa *if you don't believe it* (si *if* [Sp.] + ďa + ?iŋkupʌ́kpa *you believe it*)
wánpi ?ilìbrohóm *he reads his book* (wanpa *he reads*)

4.29. Phrase stress cuts across word stress to the extent that the loud stress in an utterance tends to come as nearly as possible at the end of the utterance, within the limitations fixed by the presence of any inherently weak-stressed syllables in utterance final position. Thus, other loud-stressed syllables in words preceding that with the final loud stress usually are given medial stress. Groupings of words into utterances with one final loud stress and other medial stresses tend to be groupings of noun or verb with preceding modifying words, e. g., ɸùg iťúɸ *rat's tail*, tùŋgam háma *another day*, hèmu?m i?í·š *there he saw it*. Gerundial clause constructions also follow this pattern, with the final (gerundial) verb receiving the loud stress and the preceding (main) verb receiving a medial stress, e. g., mòh ihʌ́s *he began to think*, tʌ̀ksob išʌ́? *he continues hitting*. Modifying elements following the word which they modify retain their loud stress, e. g., túh pʌ́mbʌk *hard rain*. In an utterance in which a noun subject or object follows a verb the noun is characterized by loud stress, while the loud stress of the verb, if on the final syllable which is not the stem, shifts back to the stem leaving a medial stress on the final syllable, e. g., ?ikunuktʌ́·p *he came to where they were* + táhwiñ *minnows* > ?ikunúktʌ̀·p táhwiñ *he came to where the minnows were*.

MORPHOLOGY

5. GENERAL REMARKS

5.1. Word classes. Popoluca words fall into four major classes: verbs, pronouns, substantives, and enumeratives. This classification is based on purely formal criteria, and words of each class have their own paradigmatic sets. Pronouns partake of a small part of verb inflection, but because pronominal themes are free while those of the verb class are always bound, and because pronoun inflection is much less extensive than that of the verb, pronouns have been considered as constituting a separate form class. The substantive class includes nouns and attributives. Attributives are largely analytic, but some may partake of a part of noun inflection, often in stereotyped form. Enumeratives likewise partake of a part of noun inflection, but also have their own inflectional system. A few attributives may be given a part of the enumerative inflection.

5.2. Morphological processes. There are three processes involved in the formation of Popoluca words: affixation, compounding, and reduplication. Affixation includes prefixation and suffixation, of which the latter is more widely used. It is convenient for purposes of analysis to distinguish two levels of Popoluca morphology: theme formation, and word formation or inflection. All of the morphological processes are used in the formation of the theme, while only affixation is used in the formation of the word. The processes of theme and word formation are more complex for verbs than for words of the other form classes.

5.3. Theme formation. Themes may consist of a simple stem or root morpheme, a reduplicated stem morpheme, a simple or reduplicated stem plus thematic affixes, or a compound of two or (rarely) more themes. Every stem or theme belongs inherently to one form class, and must be given special suffixes to change it to a theme of another form class. Thus, verb themes may be formed from substantive themes by the addition of certain thematic verb suffixes, and noun themes may be formed from verb themes by the addition of certain thematic noun suffixes. In addition, one theme may become a new theme of the same form class by the attachment of thematic prefixes and/or suffixes of that form class. Themes may be bound or free, i. e., they may be words in absolute (or theme) form, or may become words only through the attachment of nonthematic affixes. Themes of the substantive and pronoun classes are free themes, while most enumerative and all verb themes require nonthematic affixes (which phonetically may be zero).

5.4. Word formation. Word formation pro-

ceeds by the attachment of paradigmatic sets of nonthematic affixes to themes. The paradigmatic sets used differ on the whole for words of different form classes, although there is some overlapping. Each paradigmatic set constitutes a separate morphological category.

5.5. Morphological categories may be defined as follows.

(1) Pronominal reference. This is a category of nouns, verbs, and enumeratives, and is expressed by means of prefixes. For nouns and enumeratives it is a category of possession, and for verbs one of resolution. For verbs there are two sets of prefixes which indicate intransitivity (subject) and transitivity (both subject and object). The noun and enumerative set corresponds to the transitive set for verbs. Number is expressed only in the first person.

(2) Case. This is a category of nouns, and to a limited extent of attributives. It is expressed by means of suffixes of locative, indirective, and durational reference.

(3) Number. Number is expressed in verbs, pronouns, nouns, enumeratives, and (occasionally) attributives by means of suffixation and prefixation for the first person.

(4) Aspect, mode, voice, agent, and subordination. These are categories of the verb and are expressed through suffixation.

(5) Enumeration. These are categories of the enumeratives (and of a few attributives) and are expressed through prefixation and suffixation.

5.6. Enclitics are suffixes which may be attached to a formally complete word of any form class; they are qualifying, intensifying, or limiting.

6. THE VERB THEME

6.1. One of the most complex and productive morphological processes in Popoluca is the system of formation of new verb themes from verb and substantive themes through affixation and compounding. This, with the system of verb inflection (or attachment of nonthematic affixes of the verb to the verb theme), accounts for most of the functional expression of the language. A verb theme is a single morpheme or a group of morphemes built up through affixation, compounding, or both, to which nonthematic prefixes and suffixes (which may be phonetically zero) must be attached to form a complete verb.

The thematic prefixes and suffixes are attached to a root verb morpheme, or stem, which may also be a verb theme. There are also thematic prefixes and suffixes, which, attached to a word of the substantive class, form verb themes. Other thematic affixes may then be attached to these. Compound verb themes are formed through the juxtaposition of substantive themes and verb themes, or two verb themes. Thematic affixes may then be attached to a compound theme to form a new theme. Most verb stems are also verb themes, though a few are found only with their thematic affixes, or as a member of a compound theme. Verb stems may be reduplicated, but stem reduplication has been noted only in conjunction with certain thematic affixes.

THE VERB STEM

6.2. Verb stems usually are monosyllabic of the patterns CVC and CVCC and, rarely, CV and CVCCC. A few are disyllabic of the pattern CV.CVC. Examples:

*pʌ· *get fat*
*ʔi·š *see*
*kaʔ *die*
*čiŋ *bathe*
*kips *knead dough*
*heʔk *frighten*
*tʌʔps *twist rope*
*hi.kíñ *take apart*
*ɸu. kúm *arise*

Verb stems are reduplicated only when used with the repetitive and durative thematic suffixes.

THEMATIC PREFIXES OF THE VERB

6.3. Five thematic prefixes of the verb have been isolated. These may be attached to a verb stem or to a compound verb theme in order to form special categories of meaning. These semantic categories are apparently not always clear-cut, but insofar as they have been established they are purposive, simulative, benefactive, comitative, and causative.

6.4. The prefix ku- is purposive and defines an action undertaken with a definite purpose in view.

*kuʔáʔm *search for* (*ʔaʔm *look*)
*kuná·s *go beyond* (*na·s *pass*)
*kupíñ *choose* (*piñ *touch lightly*)
*kuɸé·n *tie to something* (*ɸe·n *tie*)
*kupút *free* (*put *go out*)
*kukéh *dawn* (*keh *appear*)
*kumatóŋ *hear where something is* (*matóŋ *hear*)

6.5. The prefix ?aη- usually is benefactive or comitative in meaning, that is, the action of the verb with this prefix is performed for, with, or because of someone. This significance is most apparent when the verb theme with this prefix is transitive. In a few cases where the theme is intransitive the prefix seems to be simulative in meaning (see noun prefix ?aη- (10.5)). In other cases the meaning is specialized and cannot be clearly defined. The vowel of this prefix is the same as that of the pronominal prefix which it follows. For vowel change and loss of ? see 4.21.

?ana?ηá?mpa *I await (someone)* (*?a?m *look*)
?iniηmát *you spoke with him* (mat bound stem of *?aηmát *speak*)
mi?ηá· *he fought with you* (?a· bound stem of *?aη?á· *fight*)
?aηháypa *it thunders* (*hʌy *speak*)
?aηwéhʌ *shout!* (*weh *weep*)
?iniηnúk *you had it coming to you, it was owed you* (*nuk *arrive*)
?anaηwéhpa *I weep because of something* (*weh *weep*)

6.6. The causative prefix ?ak- expresses action that is caused by the subject of the verb, that is, to have something done or to cause another person to do it. As an object must be expressed, the transitive pronominal prefixes are used with verbs formed in this manner. For vowel change and loss of ? see 4.21.

?anagá?m *I showed him* (*?a?m *look*)
?anaknʌ́k *I sent him* (*nʌk *go*)
?anakká? *I killed him* (*ka? *die*)
mikkét *he made you go down* (*ket *go down*)
?ikhák *he passed him over* (as over an obstacle) (*hak *go across*)
?inikkí?mpa *you pull him up* (*ki?m *go up*)

6.7. The comitative prefix na- expresses action performed with someone or something. Since an object must be expressed, the transitive pronominal prefixes are always used with themes with this prefix. For vowel change see 4.21.

?ananʌ́k *I carried it* (*nʌk *go*)
?ana?ítpa *I have it* (lit. "I am with it") (*?it *be, live*)
?anaméć *I searched with him* (*meć *search*)
?inimíñpa *you are bringing it* (*miñ *come*)
?iniwátpa *you helped him do it* (*wat *do*)
?inimóη *he slept with her (him, it)* (*moη *sleep*)

6.8. The personal comitative prefix waga- expresses action that is undertaken with another person. It is often placed before the comitative prefix na- (6.7) to give added emphasis. In contrast to themes with the prefix na- the pronominal prefixes used with waga- themes may be intransitive as well as transitive.

tawagasá?ba *we go about together* (*sʌ? *go about*)
?aηwaganamóηpa *I am going to sleep with him (her)* (?an- 1st. per. sub. 3d. per. obj. t. p. pref., *moη *sleep*)
tawagamóηpa *we will sleep together* (ta- 1st per. incl. pl. i. p. pref.)

6.9. Order of prefixation. In some cases two thematic prefixes may be attached to the same verb theme. The prefixes na-, ?aη-, and ?ak- are mutually exclusive. Permissible combinations are waga- plus na-, and ku- preceded by na- or ?ak-.

?anakkutʌ́ηpa *I fell a tree* (tʌη bound stem of *?aktʌη *fell*)
?anakkupʌgá?ypa *I cause him to buy everything for someone* (*pʌgá?y <*pʌk *get* + -?a?y indir. suf.)
?anakuće·npa *I tie it someplace with something else* (*će·n *tie*)

THEMATIC SUFFIXES OF THE VERB

6.10. There are two types of thematic suffixes, the verbalizing suffixes which may be attached to a substantive theme to convert it into an intransitive verb theme, and the qualifying suffixes which are attached to a verb stem or verb theme to define the limits or quality of the action. Certain of the latter when used in conjunction with certain of the thematic prefixes form a theme whose meaning is not readily deducible from the meanings of the individual morphemes. Each verb theme has an inherent transitivity or intransitivity. Certain thematic suffixes impart intransitivity to a verb stem which in its absolute state would be transitive. A verb theme with the indirective suffix, since it must have an object, is always transitive. This is also the only thematic suffix which may be used in conjunction with other thematic suffixes, and always follows them. It may be used after any of them, except the verbalizing suffixes, including all those in combined affixation.

6.11. The inchoative verbalizing suffix -?a· may be added to a substantive to form a verb. The meaning usually is that of "becoming" although in other cases the noun from which the verb is derived is the substance of the action. Verb themes formed with this suffix usually are intransitive, unless preceded by prefixes which require the transitive pronominal prefixes, such as na- (6.7) and ?ak- (6.6).

?ayʌ?á· *I am hungry* (yʌ? *hunger*)
?akuĭi?ñá·p *I am getting lazy* (kuĭíñ ***lazy***)

ʔatʌʔbá·p *I fish* (tʌʔp- comb. form of tʌ́ʔpʌ *fish*)
ɸuʔá·p *it is becoming night* (ɸuʔ *night*)
miʔùkiʔá· *you got drunk* (ʔúki (*a*) *drink*< *ʔuk to *drink*)
ʔanakmʌbá· *I grew* (lit. "was caused to become big") (mʌh *big*)

Pronouns also may be verbalized by means of this suffix, but when this is done they cannot be given any verbal nonthematic suffix except the incompletive agentive suffix -paʔap (it is probable that -wʌʔʌp, completive agentive, may also be used, but it has not been noted).

ʔiʔa·páʔap *who is it?* (ʔi *who*)
mìʔa·páʔap *who are you?* (mič> mi- *you*)

6.12. The possessive verbalizing suffix -ʔʌʔy is freely attached to nouns to indicate possession of the noun. Themes formed with this suffix are always intransitive.

ʔatʌgʌ́ʔy *I had a house* (tʌk *house*)
miče?sʌ́ʔy *you had a bed* (ɸeʔs *bed*)
hàwaʔηʌ́ʔypa *he has a fever* (háwaη *fever*)
ko·bàktʌgʌ́ʔy *he had a hat* (ko·báktʌk *hat*)

6.13. The qualifying suffixes. There are four qualifying suffixes, three of which define the continued or repeated quality of the action, one of these with reference to the mobility of the actor. The repetitive and the durative suffixes may be attached to a verb stem in either its simple or reduplicated state. The fourth suffix is indirective.

6.14. The repetitive suffix -ʔoʔy when attached to primary or secondary verb stems indicates action repeated many times in quick succession or (occasionally) sustained action. It is always used with the intransitive pronominal prefixes. Often it is used with reduplicated verb stems. It differs primarily from the durative suffix -neʔ (6.15) in that it is used especially with verb themes which imply sudden or repetitive action, such as hitting, grabbing, throwing, brushing, etc., rather than with verb themes which convey a smoothly continuative meaning such as dancing, sleeping, or writing. Sometimes the two concepts overlap, e. g., ʔahèʔnheʔnóʔypa and ʔahèʔnheʔnnéʔba, both of which mean *I keep digging* (*heʔn *dig*). Examples with unreduplicated stems:

ʔamaɸóʔypa *I hold on* (*maɸ *grasp*)
ɸʌgóʔypa *he rings* (*a bell*), *he wags* (*his tail*) (*ɸʌk *make a wagging or swinging motion*)
hʌʔyóʔy *he made a speech* (*hʌy *speak*)
tʌksóʔy *he beat* (*a drum*) (*tʌks *touch*)
čihóʔypa túh *it is raining* (*čih *hit*, tuh *rain*)

Examples with reduplicated stems:

ʔamàɸmaɸóʔypa *I take hold of lots of things in succession* (cf. ʔamaɸóʔypa above) (*maɸ *grasp*)
ʔačihčihóʔypa *I keep hitting things* (cf. čihóʔypa above) (*cih *hit*)
ʔawàtwadóʔypa *I do lots of things in succession* (*wat *do*)
ʔašikšigóʔypa *I keep on laughing* (*šik *laugh*)

In two cases this suffix has been noted attached to noun stems: *ɸeʔmóʔy *urinate* (ɸem *urine*), *ťiʔnóʔy *defecate* (ťiñ *feces*).

6.15. The durative suffix -neʔ contrasts with the suffix -oʔy (6.14) in that the action expressed by the verb themes to which it is attached is durative rather than repetitive in nature. It is almost always used with reduplication of the verb stem. Verbs with this suffix always take the intransitive pronominal prefixes.

ʔaηhamnéʔba *I remember* (*ʔaηhám *believe*)
ʔamumnéʔ *I was sick* (*mum *lie on one's side*)
mòηmoηnéʔ *he kept on sleeping* (*moη *sleep*)
ʔèɸeɸnéʔba *he keeps on dancing* (*ʔeɸ *dance*)
nʌ̀knʌknéʔ *he kept going* (*nʌk *go*)
hìpshipsnéʔ *it kept burning* (*hips *burn*)

6.16. The mobile-repetitive suffix -ʔʌʔyʌ́ʔy expresses a repeated or continued action performed while the actor is in motion. Either transitive or intransitive pronominal prefixes are used, depending upon the underlying verb.

ʔampèdʌʔyʌ́ʔypa *I go along sweeping things* (*pet *sweep*)
ʔampèʔdʌʔyʌ́ʔypa *I go along laying things together* (*peʔt *lay together*)
ʔanʌ̀gʌʔyʌ́ʔypa *I go along this way* (*nʌk *go*)

6.17. The indirective suffix -aʔy is used when an indirect object of the verb is to be expressed. The direct object usually expressed with the transitive pronominal prefix (7.5) becomes in this case the indirect object. Thus, verbs with this suffix always take the transitive pronominal prefixes. When this suffix gives a specialized meaning, it sometimes is reduplicated to give again an indirective meaning, e. g., ʔikót *he inserted it* (*kot) >ʔikodáʔy *he copulated* >ʔikòdayáʔy *he inserted something in it for someone.*

ʔannegáʔy *I hid it from him* (*nek *hide*)
ʔaηwadáʔypa *I do it to him* (*wat *do*)
manɸagáʔy *I left it for you* (*ɸak *leave*)
ʔipiʔηáʔy *he gathered it for someone* (*piʔη *gather*)
ʔiʔugáʔy *he drank it with him* (*ʔuk *drink*)
ʔanʌʔmáʔy *he said it to me* (*nʌm *say*)

COMBINED THEMATIC AFFIXATION

6.18. In most cases of simultaneous attachment of a prefix and a suffix to a verb stem the meaning of the resulting word is logical and foreseeable. Sometimes, however, the combination gives rise to a totally new meaning. This is the case when the prefixes ?ak- (6.6) or ku- (6.4) are affixed to the same stem as the suffixes -?ʌ?y/ -?ʌgʌ́?y (6.19–20) or -?a?y (6.17).

6.19. Causative-dispersive affixes of the pattern ?ak- . . . . -?ʌ?y/-?ʌgʌ́?y. The subject of a verb with these affixes generally causes the object to disperse in a direction away from the position of the subject. (The form of the suffix varies freely between -?ʌ?y and -?ʌgʌ́?y. It can be used only in cases of combined affixation as illustrated here, and in paragraphs 6.20 and 6.21. The verbalizing suffix -?ʌ?y (6.12) is distinct, in that it is never attached to verb themes.)

?anakkèbʌgʌ́?ypa *I drive something away from me* (*kep *drive* [as of animals])

?anakya?gʌ́?ypa *I push something away from me* (*ya?k *push*)

tanaknʌgʌ́?ypa *let's go in different directions!* (*nʌk *go*)

?anakpe?dʌ́?ypa *I lay things out in a row* (*pe?t *lay together*)

?anaga?mʌ́?ypa *I watch someone out of sight* (*?a?m *look*)

6.20. Resultative affixes of the pattern ku- . . . . -?ʌ?y/-?ʌgʌ́?y indicate that the action of the verb leads to a definite result. There is probably also a certain purposive significance.

?aŋku?ì·šʌgʌ́?ypa *I see where something is* (that I didn't know of before, or that wasn't there before) (*?i·š *see*)

?aŋkupadʌ́?ypa *I find something* (that wasn't there before, or that I was looking for) (*pat *meet, encounter*)

?aŋkusu?nʌ́?ypa *I keep something* (because I like it) (*su·n *want*)

?aŋkuna·sʌ́?ypa *I pass someone going in the opposite direction* (*na·s *pass*)

6.21. Resultative affixes of the pattern ?aŋ- . . . . -?ʌ?y are very rare and it has not been possible to determine with certainty the precise meaning. Apparently, as in the case of 6.20, the action of the verb leads to a definite result.

?aŋko?mʌ́?ypa *he marries* (*kom *fill*)

?anaŋmeɕʌ́?ypa *I go and search for more of something* (to have enough) (*meɕ *look for, search*)

6.22. Benefactive affixes of the pattern ?ak- . . . . -?a?y have the meaning of doing something for someone else, using his implements or materials.

?anaktʌ?má?ypa ?iťúmin *I am keeping his money for him* (*tʌm *keep*, ?iťúmin *his money*)

manakyu?má?ypa ?impásuŋ *I boil your squash for you* (*yu·m *boil*, ?impásuŋ, *your squash*)

?anakwa?ná?ypa pè?m iviktróla *I am going to play that person's victrola* (*wa·n *sing*, pe?m dem. pron. "that person," ?iviktróla *his victrola*)

6.23. Terminative affixes of the pattern ku- . . . . -?a?y express the idea of performing an action until it is finished.

kukehá?y *it appeared* (something that had been lost) (*keh *appear*)

?akku?i·šá?yʌ *find it!* (*?i·š *see*)

?aŋkupe?dá?ypa *I lay together all the things that I am going to lay together* (*pe?t *lay together*)

THE COMPOUND THEME

6.24. A compound theme may consist of two verb themes in juxtaposition, or one or two substantive themes compounded with a verb theme. Compound themes may be further developed by the use of thematic affixes. When two verb themes are compounded neither can actually be said to be modifying the other in most cases, for the two separate actions expressed are both integral parts of the action of the resultant compound theme. In a few cases, however, the action expressed by the second theme directly follows the action expressed by the first. The special compounding themes modify the theme to which they are attached.

6.25. Compounds of two verb themes.

?a?na?mse·t *I looked back* (lit. "turned around and looked") (*?a?m *look* + *se·t *turn around*)

?anakmoŋɕákpa *I leave him sleeping* (?ak- caus. pref. + *moŋ *sleep* + *ɕak *leave*)

?ampaɕkí?mpa *I throw it up in the air* (*paɕ *throw* + *ki?m *go up*)

?amòŋkukéhpa *I wake up at dawn* (*moŋ *sleep* + *kukéh *dawn* < *keh *appear*)

?inčihhákpa *you throw it across* (*čih *throw* + *hak *cross*)

?aŋkù?tkukéhpa sʌ́k *I will breakfast on beans* (*ku?t *eat* + *kukéh *dawn*)

čipùtse·dayťáp *he was reversed and changed into (something)* (*čipút *reverse* + *se·t *change into*)

?anne?mkípspa *I taste it (test it by tasting)* (*ne?m *lick* + *kips *test*)

?annè?mkipsá?ypa *I taste it for him* (-?a?y indir. suf.)

?annʌ?mayčákpa *I tell him and leave* (*nʌ?má?y *tell to someone* + *ɕak *leave*)

6.26. Special compounding verb themes. There are six compounding verb themes which when joined to another verb theme form special semantic categories. These are perhaps derived from verb stems which are phonetically identical but which, as independent themes, differ in meaning.

6.27. The temporary compounding theme poy- is the only compounding theme which precedes the verb theme which is modified (cf. *poy *run*). As a compounding theme it means . . . . "for a little while."

poymóŋ *he slept for a little while* (*moŋ *sleep*)
ʔapoyhćkpa *I rest for a little while* (*hek *rest*)
ʔampòykuɕák *I left it here for a little while* (ku- purp. pref. + *ɕak *leave*)

6.28. The originative compounding theme -na·s *to do first* (cf. *na·s *pass*).

ʔanʌkná·s *I went first* (*nʌk *go*)
mimiññá·s *you came first* (*miñ *come*)

6.29. The instrumentative compounding theme -ka? usually indicates that the action expressed in the main verb theme is performed through the use of some instrument or agent (either implicitly understood or expressed), although it may have other specialized meanings (cf. *ka? *die*).

ʔanyòhoykáʔba *I have with which to pay* (*yohóʔy *keep paying*< *yoh *pay*)
ʔamoŋkáʔba *I sleep covered up* (*moŋ *sleep*)
nʌʔkká? *he drank water out of something* (*nʌʔk *drink water*)
yemká? *he fanned himself with something* (*yem *fan*)
šikkáʔba *he laughs at something* (*šik *laugh*)
ʔikò·ñkané? tùm serpiénte *he has seated himself on a serpent* (*ko·ñ *sit*)

6.30. The compounding theme -pak is used to express stasis after action (cf. *pak *wrestle, throw over*).

ʔammatoŋpák *I listened without entering into the conversation* (*matóŋ *listen*)
ʔaʔnaʔmpák *I watched (someone do something)* (*ʔaʔm *look*)
ʔimaɕpák *he held on to it* (*maɕ *grasp*)
heʔnpákpa *he covers something hollow* (*heʔn *dig*)

6.31. The inchoative compounding theme -ʔaŋɕukúm is made up of the thematic prefix ʔaŋ- (6.5) plus the stem ɕukúm (cf. *ɕukúm *arise, go out*).

pòʔyaŋɕukúm *he began to run* (*poy *run*)
ʔaŋwèhaŋɕukúm *he began to shout* (*ʔaŋwéh *shout*< ʔaŋ sim. pref. + *weh *weep*)
kègaŋɕukúm *it began to fly* (*kek *fly*)

6.32. The continuative compounding theme -ʔaŋhák is made up of the thematic prefix ʔaŋ- (6.5) plus the stem hak (cf. *hak *go across.*)

ʔamòʔŋaŋhák *I remained sleeping* (*moŋ *sleep*)
ko·stèʔñaŋhák *he continued to kneel* (*ko·sté·ñ *kneel*)
wìʔgaŋhák *he continued to eat* (*wiʔk *eat*)
nàgaŋhákpa *he goes and stays away* (*nʌk *go*)
mìʔñaŋhák *he came to stay* (*miñ *come*)

6.33. Compounds of noun themes and verb themes.

ʔahʌpkó·ñpa *I stop talking, keep quiet* (hʌp *mouth* + *ko·ñ *sit down*)
ʔanʌʔhéʔnpa *I swim, paddle (as a boat)* (nʌʔ *water* + *heʔn *dig*)
ʔanakʌʔmáɕpa *I shake hands with him* (kʌʔ *hand* + *maɕ *grasp*)
ʔaŋkò·bakpíhpa *I annoy him* (kó·bak *head* + *píh *heat*)
ʔiñàʔkʌʔnákspa *he blesses him* (nʌʔ *water* + kʌʔ *hand* + *naks *hit*)
ko·sté·ñ *he knelt* (ko·s- comb. form of kó·so *knee* + *te·ñ *stop*)

6.34. Compounds of an attributive theme and a verb theme.

ʔanùntahápa *I really speak* (núnta *really* + *hʌy *speak*)
ʔaŋwʌ·ɕák *I fixed it* (wʌ· *good* + *ɕak *leave*)
wʌ·pút *he was successful* (lit. "came out well" as in some undertaking) (wʌ· + *put *come out*)
ʔanšùťuwátpa *I make it smaller* (šúťu *small* + *wat *make, do*)
ʔaŋwà·ʔaŋhám *I desire, like* (wʌ· + *ʔaŋhám *believe*)
ʔanɕàmnaʔíť *I have a great deal* (ɕam *much, very* + *naʔíť *have*)

7. NONTHEMATIC PREFIXES OF THE VERB

7.1. There are two sets of nonthematic verb prefixes, which are mutually exclusive and which are used to indicate pronominal reference and resolution. Each verb theme, to be conjugated in the active voice, must be given the prefixes of one set or the other (or such as are phonetically zero) except for the main verb in syntactic clause sequences of main verb plus resultative gerundial verb (19.8–9) and main verb plus conditioned gerundial verb (19.10). Only a few verb themes may take either. The first set indicates the intransitivity and the second the transitivity of the verb. Thus the first set indicates subject and the second both subject and object. Verbs conjugated in the passive voice (with the passive nonthematic suffix) must use the intransitive set of prefixes, although only verbs which are transitive when in

the active voice may be conjugated for the passive. Conversely there are some changes from the intransitive to the transitive set in gerundial and contemporaneous clause constructions (19). Number, ordinarily expressed by suffixation, is only expressed by the pronominal prefixes of the first person of both sets to indicate the inclusive plural (8.4).

THE INTRANSITIVE SET

7.2. The intransitive set includes pronominal prefixes for the first, second, and third persons singular, and the first person plural.

Person	Singular	Plural
1st	ʔa-	ta-
2d	mi-	
3d	# (zero)	

ʔanʌ́kpa *I go* (*nʌk *go*), tanʌ́kpa *we* (incl.) *go*, miñʌ́kpa *you go*, nʌkpa *he goes*

7.3. Verb themes which take the intransitive set of prefixes can neither be defined phonetically nor morphologically, except for the verb themes with the thematic suffixes -ʔa· (6.11), -ʔʌʔy (6.12), -ʔoʔy (6.14), and -neʔ (6.15) which must always use the intransitive pronominal prefixes except in syntactic constructions as indicated above (7.1). Similarly, verbs conjugated in the passive, with the passive nonthematic suffix, always use the intransitive set, although in the active voice they are transitive. A very few verb themes have been found which can take either the transitive or intransitive set, with such meanings as "marry" and "marry someone," "look," and "look (at) someone," "speak" and "speak (to) someone."

7.4. Stative verbs. Nouns, pronouns, and attributives which may modify nouns may be inflected with the intransitive set of pronominal prefixes when used predicatively, e. g., ʔapʌ́·šiñ *I am a man*, ʔaʔʌ́č *it is I*, mimíč *it is you*, heʔ *it is he* (*she, it*). Since the prefix in the third person is phonetically zero, the independent third person pronoun heʔ usually is placed before the verbalized noun or attributive, e. g., heʔ pʌ́·šiñ *he is a man*, heʔ wʌ́· *he is good*.

THE TRANSITIVE SET

7.5. Both subject and object are expressed by the transitive prefixes. Verb themes which require an expressed object must have one of the prefixes of this set. Phonetically and morphologically they are indistinguishable from those used intransitively, except for themes formed with the thematic prefixes na- (6.7) and ʔak- (6.6), and those formed with the indirective suffix -ʔaʔy (6.17), which, since an object must be expressed, are always transitive. The transitive prefixes also are used with the verb of the subordinate (linear) clause (and sometimes with the verb of the main clause) in linear-punctual contemporaneous clause constructions (19.4), with the main verb of linear-linear contemporaneous clause constructions (19.5), and with the subordinate verb of conditioned gerundial clause constructions (19.10).

	1st. per. obj.	2d. per. obj.	3d. per. obj.
1st. per. sub.		man-	ʔan- (sing.) tan- (incl. pl.)
2d. per. sub.	ʔan- (sing.)		ʔiñ-
3d. per. sub.	ʔa- (sing.) ta- (incl. pl.)	mi-	ʔi-

Ambiguity which might result from the overlapping of the prefix ʔan- for both 1st. per. sub. 3d. per. obj. sing. and 2d. per. sub. 1st. per. obj. sing. can be avoided by the use of the independent personal pronouns before the prefixes. If the independent pronoun is omitted the meaning usually is understood as first person subject third person object.

ʔančíʔ or ʔʌč ančíʔ *I gave it to him* (*čiʔ *give*)
mìč ančíʔ *you gave it to me*

Only the first person may have inclusive plural prefixation. (See 8.4 for discussion and illustrations of plurals.) The transitive prefixes are given here with the verb theme *ʔi·š *see*.

(ʔʌč) maʔní·špa *I see you*
(ʔʌč) ʔaʔní·špa *I see him* (*her, it*)
mìč aʔní·špa *you see me*
(mìč) ʔiʔñí·špa *you see him*
(hèʔm) ʔaʔí·špa *he* (*she*) *sees me*
(hèʔm) miʔí·špa *he* (*she*) *sees you*
(hèʔm) ʔiʔí·špa *he* (*she*) *sees him* (*her, it*)
taʔní·špa *we* (incl.) *see him* (*her, it*)
taʔí·špa *he* (*she*) *sees us* (pl. incl.)

8. NONTHEMATIC SUFFIXES OF THE VERB

8.1. Aspect, number, voice, mode, agent, and subordinacy are expressed through nonthematic

suffixation of the verb (table 1). Each formally complete verb must have a suffix (which may be phonetically zero) of orders I, VII, VIII, or IX. These suffixes are mutually exclusive, while those of the other orders are optional. The order of suffixation, as given in table 1, is subject to the following limitations: (*a*) the suffixes of orders II and IX, orders IV and VI, and orders VI and IX cannot be used simultaneously; (*b*) the collective suffix -num of order III has not been observed with suffixes of orders IV and VI; (*c*) the suffixes of orders I and VII have been observed only with those of order III; (*d*) the linear-completive suffix of order VIII has been observed only with suffixes of orders II and III; (*e*) the linear-incompletive suffix of order IX has been observed only with suffixes of order III.

A formally complete verb most frequently has only one nonthematic suffix, and rarely more than three.

TABLE 1.—*Order of suffixation of verbal nonthematic suffixes*

I	II	III	IV	V	VI	VII	VIII	IX
Gerundial	Perfective	Number	Aspect	Passive	Purposive	Modal	Completive aspect	Incompletive aspect
-i #(zero)	-ne?	-ta?m -yah -num	Desiderative -to?	-ta·	-tʌp	Subjunctive -?iñ	#(zero)	-pa, -p
							Agentive -wʌ?ʌp	Agentive -pa?ap
			Iterative -gak			Imperative -ʌ	Linear -wʌm	Linear -pam

Examples of suffixation order:

tohàyniyahtá·wom *they* (*tortillas*) *had just been made for him* (*tohá?y *make* (*tortillas*) *for someone*)
taŋwàttamgákpa *we* (gen. incl.) *are doing it again* (*wat *do*)
mikù?ttamtá·p *you are going to be eaten* (*ku?t *eat*)
iñʌ?mayniwʌ́?ʌp *he is the one who has said it* (*nʌ?má?y *say*)

8.2. The gerundial suffixes—order I. The gerundial suffixes are -i and # (zero). Verbs with the -i suffix are identical in form to those nouns derived from verb themes by the addition of the suffix -i (10.9). They may not, however, be given the nonthematic suffixes of nouns, and are very different from them in function. Whereas the nominalized verbs have the same syntactic usage as a standard noun the gerundials are used only as subordinate predicators following a main predicative verb in gerundial clause constructions. The syntactic usage of gerundial verbs is discussed in 19.6–11. Verbs with gerundial suffixes also may have the plural suffixes -yah and ta?m.

mòh yo·šá·hi he began to work (*yo·šá· work)
nʌ̀kpa mi ?íĭi *you are going* (*there*) *to live* (*?iĭ *live*)
wʌ?à·b ikú?t *he can eat it* (*ku?t *eat*)

8.3. The perfective suffix—order II. The perfective suffix -ne? may be translated by either "have" or "had." Since perfective action is always completed action, this suffix cannot be used with the incompletive suffixes.

?a?ni·šné? *I have seen it* (*?i·š *see*)
nʌkné?om *he had just gone* (*nʌk *go*, -om enc. "just")
nʌ̀?maynitáwom *it has just been said* (*nʌ?má?y *say to someone*, -wom enc. "just") (for -ne? >-ni?, see 4. 17)
ɬè·nniyáh *they had tied themselves* (*ɬe·n *tie*)

8.4. The number suffixes—order III. There are three number suffixes: -ta?m, used when either the subject or object (expressed by the nonthematic prefixes) is in the first or second person, and pluralizing either the subject or object; -yah, used when either the subject or object is in the third person, and pluralizing either the subject or object; -num, used as a collective plural of the third person subject. -ta?m, in its unstressed form -tam (4.9), is also the pluralizing suffix of first and second person pronouns, while -yah is the pluralizing suffix of third person pronouns (9.2). -tam and -yah also are used as

noun plural suffixes, but without the pronominal connotation (12.2). Plurality is unexpressed and contextually understood unless this would result in ambiguity, in which case it may be indicated in the ways discussed below.

VERB PLURALIZATION

There are three categories of first person subject or object plurals: the exclusive plural, the limited inclusive plural, and the generalized inclusive plural. The exclusive plural excludes the person or persons addressed. The limited inclusive plural includes the speaker and the person or persons addressed, and excludes any others who may be present or referred to. The generalized inclusive plural includes the speaker, person or persons addressed, and any other person or persons present, or absent and referred to.

The first person exclusive plural is formed with the suffix -ta?m with or without the personal pronouns, or by means of the plural personal pronouns without the suffix -ta?m.

?amoŋtá?mpa *we are sleeping* (?a- 1st. per. i. p. pref. + *moŋ *sleep* + -ta?m + -pa inc. suf.)
?ʌčča?m amóŋpa same meaning; 1st. per. pl. pron. ?ʌčča?m has been used, excluding the verbal suffix -ta?m
?ʌčča?m amoŋtá?mpa same meaning; both 1st. per. pl. pron. and the verbal suffix -ta?m are used
?a?ʌčča?m amoŋtá?mpa same meaning; occasionally in plural constructions the verbalized personal pronouns are used for emphasis.
ma?ni·štá?mpa *I see you* (pl.), *we see you* (pl. or sing.) (man- 1st. per. sub. 2d. per. obj. t. p. pref. + *?i·š *see* + -ta?m + -pa)

In the case of the transitive pronominal prefix ?an- which means both 1st. per. sub. 3d. per. obj. and 2d. per. sub. 1st. per. obj., the independent personal pronouns are often used to avoid ambiguity.

Without pronouns:

?a?ni·štá?mpa *I see them, we see him, you* (sing.) *see us, you* (pl.) *see me*

With pronouns:

?ʌč a?ni·štá?mpa hé?yah *I see them*
?ʌčča?m a?ní·š(ta?m)pa hé? *we see him*
?ʌčča?m a?ni·šyáhpa *we see them*
mič a?ni·štá?mpa ?a?ʌčča?m *you* (sing. or pl.) *see us* (verbalized pron.)
mičča?m a?ni·štá?mpa ?a?ʌčča?m *you* (pl.) *see us*
mičča?m a?ní·š(ta?m)pa ?a?ʌč *you* (pl.) *see me*

The first person limited inclusive plural is formed by attaching the pronominal prefix ta- (1st. per. pl. intransitive, and 3d. per. sub. 1st. per. obj. pl. transitive) or tan- (1st. per. pl. sub. 3d. per. obj. transitive) before the verb stem.

tamóŋpa *we will sleep* (*moŋ *sleep*)
ta?ní·špa *we see him (her, it, them)* (*?i·š *see*)
ta?í·špa *he sees us*

The generalized first person inclusive plural is formed by attaching both the plural pronominal prefixes ta- or tan- before the verb stem and the plural suffix -ta?m after the verb stem.

tamoŋtá?mpa *we will sleep* (*moŋ *sleep*)
ta?ni·štá?mpa *we see him (her, it, them)* (*?i·š *see*)
ta?i·štá?mpa *he (she, it, they) see us*

The second person plural is expressed by the use of the suffix -ta?m, the plural personal pronoun, or both.

mimóŋtá?mpa *you* (pl.) *sleep* (mi- 2d. per. i. p. pref., *moŋ *sleep*)
mičča?m mimóŋpa same meaning; plural personal pronoun used to express the plural
mičča?m mimoŋtá?mpa same meaning; both plural pronoun and suffix used
?i?ni·štá?mpa *you* (pl.) *see him*
mi?i·štá?mpa *he sees you* (pl.)

The third person plural is expressed by use of the suffix -yah. If both subject and object are in the third person the independent pronouns may be used to indicate whether subject or object or both are plural. When subject is first or second person and object third person, -yah pluralizes the object.

moŋyáhpa *they sleep* (*moŋ *sleep*)
nʌkyáhpa *they go* (*nʌk *go*)
?i?i·šyáhpa *they see him, he sees them* (*?i·š *see*)
hè?yah i?i·šyáhpa *they see him*
hè? i?i·šyáhpa pé?myah *he sees them*
hè?yah i?i·šyáhpa pé?myah *they see them*
?a?ni·šyáhpa *I see them*

The collective suffix -num is used to express action undertaken collectively or by a group. It has been observed only with the third person pronominal prefixes.

se·tnúmum *they just returned in a group* (*se·t *return* -um enc. *just*)
wi?knúmpam *they were already eating in a group* (*wi?k *eat*, -m enc. "just", "already")

8.5. The aspect suffixes—order IV. The iterative suffix -gak may be translated as "again," "once more."

miñgákpa *he comes again* (*miñ *come*)
wàsgaktá·p *he is being bitten again* (*was *bite*)
mi?i·šnigaktá· you have been seen again (*?i·š *see*)
?amòŋnigákpa *I have slept again* (*moŋ *sleep*)

The desiderative suffix -to? may be translated by "wish" or "want."

?ayo·ša·tó?ba *I wish to work* (*yo·šá· *work*)
mipʌ̀kyahtó?ba *they want to marry you* (*pʌk *marry*)
tamòŋtamtó?ba *we want to sleep, are sleepy* (*moŋ *sleep*)

8.6. The passive suffix—order V. The suffix -ta· indicates passive voice and is attached only to verb themes which in the active voice may take the transitive pronominal prefixes. Since in the passive voice there is no object, the intransitive pronominal prefixes (7.2) are used.

kuɛ́attá· *he was sent* (*kuɛ́át *send*)
?akhò·do?ŋa·tá· *he was informed* (*?akhò·do?ŋá· *inform*, lit. "cause to know")
?ači?ĭá·p *I am given* (*či? *give*)
nanʌ̀knetá·wom *he has just been taken* (*nanʌ́k *take*)
miku?ttá· *you were eaten* (*ku?t *eat*)

8.7. The purposive suffix—order VI. The purposive suffix -tʌp is used to express an action that was intended or purposed but not carried out.

?anakka?tʌ́p *I meant to kill him but didn't* (*?akká? *kill*)
?amoŋtʌ́p *I wanted to sleep but couldn't* (*moŋ *sleep*)
miñʌktʌ́p *you meant to go but didn't* (*nʌk *go*)
nʌ̀mayĭa·tʌ́p *it was going to be said but wasn't* (*nʌ?má?y *say (to)*)

8.8. The modal suffixes—order VII. The subjunctive mode is expressed by the suffix -?iñ, which is used in phrases of possibility and exhortation. It may be preceded by the plural suffixes but has not been observed with other nonthematic suffixes.

. . . . ?iga yú?miñ *that it may boil* (?iga conj. "that," *yu·m *boil*)
tawí?gi?ñam *shall we* (lim. incl.) *eat now?* (*wi?k *eat*, -?am enc. "now")
?ačí?i?ñ anyo·šá·hi *that I be given work* (from a prayer) (*či? *give*, ?anyo·šá·hi *my work*)
nʌ?má?yʌ ?iŋmáđi?ñ iñʌ́yi *say to him that he shall tell his name*, (nʌ?má?yʌ *say to him*, *?aŋmát *tell*, ?iñʌ́yi *his name*)

The imperative suffix -ʌ is used only in the second person. The plural suffix -ta?m (8.4) placed before the imperative suffix forms the plural imperative. For transitive verbs the third person object is implicit unless first person object is to be expressed, in which case the verb is preceded by ?a- 3d. per. sub. 1st. per. obj. t. p. pref. which substitutes for the 2d. per. sub. 1st. per. obj. t. p. pref. ?an- which one might logically expect to find. The imperative suffixes have been observed with no nonthematic suffixes other than the 2d. per. plural suffix -ta?m. The temporal or limiting enclitic -m (15.2) is often used after the imperative suffix, in some cases frozen by usage.

nʌ́gʌ *go!* (*nʌk *go*)
nʌktá?mʌ *go!* (plural)
pʌ́kʌm *take it (him, her)!* (*pʌk *take*, -m enc. "just")
húyʌm *buy it!* (*huy *buy*, -m enc. "just")
čí?ʌ *give it to him!* (*či? *give*)
?ačí?ʌ *give it to me!*

8.9. The completive and incompletive suffixes—orders VIII and IX. Tense is not expressed in Popoluca, but every action expressed by a verb which does not have a gerundial, modal, or purposive suffix must have a completive or incompletive aspect suffix. The completive, except in agentive and linear-punctual clauses, is expressed by a suffix which is phonetically zero, and the incompletive by a morpheme in which the phoneme p is initial. Since the completive suffixes designate an action which has been completed, they are usually to be translated by the English past tense. Since the incompletive suffixes designate an action which has not been completed, they are usually to be translated by the English present or future tenses. In a narrative an action may actually have been completed, but is not yet completed with reference to the other action of the narrative, and therefore may be given one of the -p- suffixes.

The incompletive suffix -pa may be attached to all verb themes except those of more than one syllable which end in -a·, those having the nonthematic passive suffix -ta·, and those ending in the reduced form of the verbal suffixes -?a?y, -?o?y, and -?ʌ?y (4.10), in which cases the form -p is used.

?anʌ́kpa *I am going* (*nʌk *go*)
?a?ní·špa *I see it* (*?i·š *see*)
?a?i·šĭá·p *I am seen*
?ayo·šá·p *I work* (*yo·šá· *work*)
tʌksob išʌ́? *he is (repeatedly) hitting* (full form *tʌksó?y-pa<*tʌksó?y *keep hitting*)

The incompletive agentive suffix -pa?ap indicates the doer of an action not yet completed. In order to take this suffix certain pronouns may be transformed into verbs through the same derivational process by which a noun is verbalized, i. e., the addition of the thematic suffix -?a· (6.11).

hè?m iño?pá?ap nás *he who burns the earth* (he?m 3d. per. pers. pron., *no? *burn*, nas *earth*)
tùm anímat taku?tpá?ap *an animal that eats us* (túm indef. art., anímat *animal* (Sp.) *ku?t *eat*)
?i?a·pá?ap *who is it?* (lit. "who is the one who [does it]") (?i inter. pron. "who" + -?a· verb. thematic suf.)

mì?apá?ap *who are you?* (lit. "you are the one who [does it]") (mič 2d. per. pers. pron. > mi)
wʌ?à·yahpá?ap *those who are able* (*wʌ?á· *be able*)

The completive agentive suffix -wÁ?ʌp indicates the doer of a completed action.

?iñÀ?maynewÁ?ʌp *he is the one who said it* (*nʌ?má?y *say [to someone]*)
?ini?ĺ hè?m pák ikka?wÁ?ʌp *he had the bone which killed him* (?ini?íĺ *he had*, he?m def. art., pak *bone*, *?akká? *kill*)
nà·snewÁ?ʌp *that which has passed* (*na·s *pass*)

THE LINEAR SUFFIXES

The linear suffixes -pam (incompletive) and -wʌm (completive) are used only with the linear verb form in clause constructions expressing linear-punctual contemporaneous action. The syntactic usage of verbs with these suffixes is discussed at length in 19.4.

?amoŋpám *as I sleep . . .* (*moŋ *sleep*)
?awì?kniwÁm *as I have been eating . . .* (*wi?k *eat*)

9. PRONOUNS

9.1. Pronouns are personal, interrogative-relative, and demonstrative. All are monosyllabic stem morphemes except the negative pronouns formed by compounding, the demonstrative tungak (tum *a* + -gak), and the emphatic personal pronouns. The personal and the demonstrative pronouns may be inflected with the plural suffixes -tam and -yah. The others may not be inflected, except the interrogative-relative pronoun ĭi which is sometimes given the noun indirective suffix -mʌ, i. e., ĭi *which, what* + -mʌ > ĭímʌ *with which, with what.*

9.2. The personal pronouns.

?ʌč *I*	?ʌ́čĭam *we*
mič *you*	míčĭam *you* (pl.)
he? *he, she, it*	hé?yah *they*

9.3. The emphatic personal pronouns. The bound stem -yá?ak, always used with the possessive pronominal prefixes, forms an emphatic pronoun, often used following and in apposition to the personal pronouns. The three emphatic pronouns are:

?anyá?ak *myself*
?iñyá?ak *yourself*
?iyá?ak *himself*

9.4. The interrogative-relative pronouns.

?i *who*
hup *which*
ĭi *what, which*

9.5. The demonstrative pronouns.

yʌ?p *this one*	yʌ́?pyah *these ones*
pe?m *that one*	pé?myah *those ones*

túngak *the other one*

9.6 The negative pronouns.

ĭa?í *no one* (ĭa neg. at. + ?i *who*)
ĭaĭí *nothing* (ĭa + ĭi *what*)

10. THE NOUN THEME

10.1 A noun theme may be composed of a single, unanalyzable, thematic element, or stem, a frozen reduplicated stem, a stem consisting of two unanalyzable elements the first of which is reduplicated, a stem plus a thematic prefix or suffix, (rarely both) or a compound of two noun themes or an attributive theme and noun themes. Noun themes may be formed from verb themes by the addition of a thematic suffix.

Most noun themes ending in a vowel have a combining form (4.19) which omits the final vowel when suffixed or as the first member of a compound, e. g.:

yó·mo	yo·m- *woman*
móya	moy- *flower*
tékši	tekš- *skirt*

THE NOUN STEM

10.2. Noun stems are mono- or disyllabic conforming to the patterns CVC, CVCC, CV.CV, CVC.CV, CVCC.CV, CV.CVC, and CVC.CVC. A few trisyllabic stems have been noted but it seems probable that these are either borrowed forms or capable of further analysis.

hon *bird*
ɸu? *night*
hu?n *owl*
?á·.či *uncle*
ká.ma *milpa*
čáh.ka *deaf mute*
kú?n.ki *squirrel*
há.waŋ *fever*
píš.ĭʌk *flea*
?a·tébet *town*
triŋló?kʌɸ (a one-legged witch)

Reduplicated noun stems are of the pattern CV(CV) or CVC(CVC) or a reduplication of the first syllable (CV) of a two-syllable stem.

ɸʌ́ɸʌ *aunt, older sister*
nóno *mushroom*
núnu *breast, nipple*
tútu *penis*
héhe *mosquito*

méme *butterfly*
pó?po? *fish trap*
ɟiɛ́mat *enchanted place* (Sp. "encanto")
pupúsu *lung*
kukúma *ring*

THEMATIC PREFIXES OF THE NOUN

10.3. Most thematic prefixes of nouns are attached to one or two noun themes only, and are of unanalyzable meaning. A few are attached to a larger group of themes, and their meaning may be isolated.

10.4. Some prefixes of unanalyzed meaning:

kutúhkʌ? *rain storm* (tuh *rain*)
?ákpak *cheek* (pak *bone*)
?áktʌɟ *molar* (tʌɟ *tooth*)
hápak *car of corn* (pak *bone*)
wíñpak *forehead* (pak *bone*)

10.5. The simulative prefix ?aŋ- usually is used to form a noun theme that is similar to or possesses some resemblance to the noun theme to which it is attached.

?a?ŋá·ñi *pimple* (?á·ñi *tortilla*)
?áŋɟay *row, line, furrow* (ɟay *vine*)
?aŋwí·ši *mustache* (wí·ši *beard*)
?aŋnáka *edge* (náka *skin*)
?aŋkó·bak *top* (kó·bak *head*)
?áŋkʌ? *patio* (kʌ? *hand*)
?aŋnáksʌ *rafter* (náksʌ *stick*)

10.6. The qualifying prefix ma- apparently has the meaning of "great".

maɟá? *star* (ɟa? *stone*)
masáwa *King of the Hurricane* (mythological character) (sáwa wind)

10.7. The qualifying prefix way- means "small."

wayɟá? *pebble* (ɟa? *stone*)
waypá·ñʌk a small variety of tick (Sp. "pinolillo") (pá·ñʌk *tick*)
wayčí·ča a net suspended from a hoop, resembling a small Popoluca-type cradle, used to store things (čí·ča *hanging net cradle*)

THEMATIC SUFFIXES OF THE NOUN

10.8. Most thematic suffixes of nouns are nominalizing suffixes attached to verb themes. Six suffixes of this type have been isolated. One suffix (locative) may be attached widely either to substantive or verb themes, and one (qualifying) may be attached widely to noun themes. There are a few other thematic suffixes of nouns analyzable as such and forming small groups of nouns of which they are a part.

10.9. The nominalizing suffix -i may be attached to many verb themes to denote the substance of the action.

?i·špáki *friend* (*?i·špák *know*)
wi?kmóŋi *supper* (*wi?k *eat* + *moŋ *sleep*)
hípši (*a*) *blaze* (*hips *burn*)
háyi *voice* (*hay *speak*)
?ákši *grain of corn* (*?ʌks *shelled corn*)
wáči (*a*) *drop* (*wʌɟ *drip*)
ká·ñi (*a*) *smell* (*kʌ·n (*to*) *smell*)

10.10. The nominalizing suffix -kuy may be attached to many verb themes to denote act, instrument, or material.

héɟkuy (*a*) *comb* (*heɟ *comb*)
?í·škuy *eye* (*?i·š *see*)
wí?kkuy *food* (*wi?k *eat*)
yémkuy *fire fan* (Sp. "aventador") (*yem *fan*)
yo·šá·kuy *work* (*yo·šá· *work*)
páhkuy *cage* (*pah *lock up*)
mʌ́·čkuy *toy* (*mʌ·č *play*)

10.11 The collective nominalizing agentive suffix -ká?wih is attached to verb themes to indicate the habitual "doers" as a class. It is a collective agentive except in the word for *the devil*, wokká?wih, lit. "barkers" (*wok *bark*).

yo·ša·ká?wih *workers* (*yo·šá· *work*)
?eɟká?wih *dancers* (*?eɟ *dance*)
wi?kká?wih *eaters* (*wi?k *eat*)

10.12. The nominalizing suffix -a occurs rarely. It is attached to a few verb themes to denote the result or substance of the action.

háka *piece* (*hak *break, shatter*)
pó?a *piece* (*po? *break, split*)
tóya *pain* (*toy *suffer*)

10.13. The nominalizing suffix -ʌ has been noted attached to three verb themes.

kípsʌ *measuring stick* (*kips *test, measure*)
náksʌ *stick* (*naks *hit*)
nʌ?tʌ́ɟʌ *thirst* (*nʌ?tʌ́ɟ *to be thirsty*)

10.14. The nominalizing suffix -aŋ has been noted attached to two verb stems.

púhaŋ *crowd* (*puh *go out*)
hípsaŋ *firebrand* (*hips *burn*)

10.15. The locative suffix -kom may be attached to verb or substantive themes to indicate place.

?inoŋkóm *his sleeping place* (?i- 3d. per. pos. p. pref. + *moŋ *sleep*)
pahkóm *cage* (lit. "lock-up place") (*pah *lock up*)
pè?m kúy íť tómi tʌkkóm *that tree is near (the) house (place)* (pè?m kúy *that tree*, ?iť *it is*, tómi *near*, tʌk *house*)
A specialized usage is wʌ·kóm which may mean either "a nice day" or "a nice place" (wʌ· *nice, pretty*)

10.16. The qualifying suffix -tuku is attached freely to noun themes usually to convey the idea of old, unserviceable, or unwanted.

tʌktúku *old, unserviceable house* (tʌk *house*)
ɕe?stúku *old, unserviceable bed* (ɕe?s *bed*)
ko·bàktʌktúku *old, unserviceable hat* (ko·báktʌk *hat*)
pu·ktúku *clothing* (pu·k- comb. form of pú·ki *cotton*)

10.17. The suffix -ti has been observed attached to Spanish loan words and other unanalyzable bound stems. All of these words are of three syllables, atypical in that the accent falls on the first syllable. The suffix -ti is itself atypical in that the t does not palatalize, following the usual pattern.

kúkuhti *coconut palm* (Sp. "coco")
lúpuhti *wolf* (Sp. "lobo")
šúnuhti supernatural being in cat form
šíkuhti a type of bee
kákašti *cage*

10.18. Miscellaneous suffixes. There are a number of miscellaneous suffixes of which one or more examples have been noted but the significance of which is not clear.

suf. -či tʌ́kči *cockroach* (tʌk *house*)
kí·nči (*a*) *cold* (ki·ñ- comb. form of kí·ñi *nose*)
suf. -ñi sʌ́ŋñi *daytime* (sʌŋ *sky*)
suf. -kʌ kutúhkʌ *rainy season, rainstorm* (tuh *rain*)
kʌ́·nkʌ *throat* (*kʌ·n *taste*)
pó?kʌ *pus* (*po? *split, break*)

COMPOUNDING

10.19. The most productive type of compounding is that of a noun theme and an attributive locator. Other types are those of noun theme plus noun theme, or attributive theme plus noun theme.

10.20. Compounds of noun theme plus locator. Most locative concepts indicating position in relation to nouns, that may not be expressed by the use of nonthematic locative suffixes, are expressed by the compounding of a noun with a locator.

tʌkkò·bakyúkmʌ *on the house-top* (tʌkkó·bak *house-top* + yúkmʌ *above*)
ko·pkúkmʌ *in the center of the plain* (ko·p- comb. form of ko·pa *plain* + kúkmʌ *in the center*)
tʌknášwiñ *under the house* (tʌk *house* + nášwiñ *under*)

10.21. Compounds of noun theme plus noun theme. The second theme is the head of the compound.

ɕayčí·ča *hammock bridge* (ɕay *vine* + čí·ča *woven net cradle*)
kuykó·bak *tree trunk* (kuy *tree* + kó·bak *head*)
kò·sokʌ́?ak *knee boots* (kó·so *knee* + kʌ́?ak *shoe*)
?àpiččíhi *porcupine* (?ápič *thorn* + číhi *fox*)
kʌ̀?aŋkí·ñi *finger tip* (kʌ? *hand* + ?aŋkí·ñi *tip* or *point* < ?aŋ- sim. pref. + kí·ñi *nose*)
nʌ̀?aŋnáka *edge of the water* (nʌ? *water* + ?aŋnáka *edge*)
yo·mtʌ́·wʌ *sister* (yo·m- comb. form of yó·mo *woman* + tʌ́·wʌ *sibling*)

10.22. Compounds of attributive theme plus noun theme. The attributive is always placed in the initial position.

šùt̆unʌ́? *small stream* (šút̆u small + nʌ? *water*)
pʌ?má·ñi *thick tortilla* (Sp. "gordita") (pʌm *thick* + ?á·ñi *tortilla*)
pophúktʌ? *a white candle* (pop- comb. form of pópo *white* + húktʌ? *fire*)
tomtʌ́·wʌ *neighbor* (tom- comb. form of tómi *near* + tʌ́·wʌ *sibling*)

10.23. Noun compounds of inflected verb plus noun. Phrases of an inflected verb (which may have an enclitic -m) and a subject noun involving the movements or position of the sun or moon are treated both formally and syntactically as a noun unit.

kì?mpamháma *east* (kí?mpam *it rises* + háma *sun*)
tʌgʌ̀ypamháma *west* (tʌgʌ́ypam *it just enters*)
kukehháma *sunrise* (kukéh *it appeared*)
kùga·páma *noon* (kugá·p *it is in the center*)
kùga·pɕú? *midnight* (kugá·p + ɕu? *night*)

11. NONTHEMATIC PREFIXES OF THE NOUN

11.1. There is one paradigmatic set of nonthematic prefixes of the noun. These prefixes correspond to the third person object, transitive, nonthematic prefixes of the verb, and are attached to noun themes to indicate pronominal possession of that noun.

?an- 1st. per. sing. or pl.
tan- 1st. per. incl. pl.
man- 1st. per. possessor 2d. per. possessed in direct discourse
?iñ- 2d. per. sing. or pl.
?i- 3d. per. sing. or pl.

Examples:

?antʌ́k *my* (*our*) *house*
tantʌ́k *our house*
?iñt̆ʌ́k *your* (sing. or pl.) *house*
?it̆ʌ́k *his* (*their*) *house*
manɕʌ́·ši *you my child!* (ɕʌ́·ši *child*)

12. NONTHEMATIC SUFFIXES OF THE NOUN

12.1. There are two plural suffixes of the noun, which correspond to the plural suffixes of verbs and pronouns, but without a corresponding pro-

nominal reference, and five case suffixes of locative, indirective, and durative reference. No noun has been observed with more than one nonthematic suffix.

THE PLURAL SUFFIXES

12.2. The two pluralizing suffixes attached to noun themes are -tam and -yah (cf. verb and pronoun pl. suffixes 8.4, 9.2). Often neither is used, since pluralizing of nouns usually is implicit or accomplished by use of verb pluralization. -tam is used to pluralize nouns signifying human beings, and -yah to pluralize those signifying animals and objects. -tam, when used with the first person possessive pronominal prefix ?an-, may pluralize the possessor rather than the noun possessed. Insufficient data were obtained on the use of plural suffixes with other possessive pronominal prefixes.

ɸʌ́·štam *children* (ɸʌ·š- comb. form of ɸʌ́·ši *child*)
yó·mtam *women* (yo·m- comb. form of yó·mo *woman*)
mánʌktam *sons* (mánʌk *son*)
kúyyah *trees* (kuy *tree*)
čí·mpayah *dogs* (čí·mpa *dog*)
tʌ́kyah *houses* (tʌk *house*)
?antʌ́ktam *our house* (?an- 1st. per. pos. p. pref.)

THE CASE SUFFIXES

12.3. The five case suffixes are used to indicate location, duration, and indirection. Three of these suffixes are composed of unanalyzable morphemes, but the other two are composed of a simulative element like that of the thematic noun prefix -?aɳ (10.5), plus one of the suffixes of the first group. Directional concepts such as motion to or from an object can be expressed only by the use of such verbs as those meaning "go in" or "go out," while the noun keeps the same locative suffix indicating static position.

12.4. The locative-durative suffix -kʌ?m means "at" or "during." Used with verbs of motion it may be translated as "to" or "from."

ɸu?kʌ́?m *during the night* (ɸu? *night*)
nòko ?íť ťùm tʌ́k antʌkkʌ́?m *a house is near my house* (nóko *near*, ?íť tùm tʌ́k *there is a house*, ?antʌ́k *my house*)
tanʌ́kpa nʌ?kʌ́?m *we go to the river* (tanʌ́kpa *we* [incl.] *go*, nʌ? *water, river*)
?amíñpa ?iñťʌkkʌ́?m *I come from your house* (?amíñpa *I come*, ?iñťʌ́k *your house*)
kukèhakʌ́?m *in the morning* (kukéha *morning*)

12.5. The locative suffix -hom indicates position within or among.

tʌgʌ́?ypa ?iťʌkhóm *he enters (into) his house* (tʌgʌ́?ypa *he enters*, ?iťʌ́k *his house*)
?aɸʌ́ypa yʌ̀?p tʌkhóm *I am going to stay in this house* (?aɸʌ́ypa *I am going to stay*, yʌ?p *this*, tʌk *house*)
wá·npa ?ilíbrohóm *he reads his book* (wá·npa *he reads*, ?ilíbro *his book* [Sp. "libro"])
?ayo·šá·b aɳka·mhóm *I will work in my milpa* (ayo·šá·p *I will work*, ?aɳká·ma *my milpa* [comb. form ka·m-])
?išúɳpa tùm ko·bàktʌkhóm *he takes it out in a hat* (?išúɳpa *he takes it out*, tum indef. art., ko·báktʌk *hat*)

12.6. The indirective suffix -mʌ may be translated as "with," "at," or "to." It may not be attached to nouns designating human beings.

nákstà· ɸáymʌ *he was hit with a vine* (nakstá· *he was hit*, ɸay *vine*)
mimíñpa ?antʌ́kmʌ *you come to my house* (mimíñpa *you come*, ?antʌ́k *my house*)
?a?íd antʌ́kmʌ *I was at my house* (?a?íť *I was*)
manhʌ?mkí?mpa tʌ́pšmʌ *I will raise you with (the) rope* (manhʌ?mkí?mpa *I will raise you*, tʌpš- [comb. form of tʌ́pši *rope*])
?iñó?ba ?iťú¢mʌ *he burns it with his tail* (?iñó?ba *he burns it*, ?iťú¢ *his tail*)

A variant -m has been observed only with the noun nʌ? "water":

nʌ́kpa nʌ́?m *he goes to the water* (nʌ́kpa *he goes*)

12.7. The suffix -?aɳhóm (cf. sim. noun pref. ?aɳ- and loc. suf. -hom) expresses position "among."

nʌ́kpa tʌ̀gaɳhóm *he goes into town* (lit. "among the houses") (nʌ́kpa *he goes*, tʌk *house* sing. or pl.)
?ikótpa ipuktùgaɳhóm *she thrusts it among her clothing* (?ikótpa *she thrusts it*, ?ipuktúk- [3d per. pos. p. pref. + comb. form of puktúku] *her clothing*)

12.8. The suffix -?aɳkʌ́?m (cf. sim. noun pref. ?aɳ- + loc. suffix -kʌ?m) expresses position "at."

nʌ́kpa iťù?ñaɳkʌ́?m *he goes behind him* (lit. "at his back") (nʌ́kpa *he goes*, ?iťú?ñ- 3d. per. pos. p. pref. + comb. form of ?iťú?ñi *his back*)

13. ATTRIBUTIVES

13.1. Attributives are noun, verb, or phrase modifiers, and include descriptives, locators, tensors, intensifiers, demonstratives, participial adverbs, interrogatives, quantitatives, negatives, conjunctions, and interjections. Although sometimes found with nonthematic affixation of nouns, often in stereotyped form, they are largely uninflected. This classification of attributives is a loose one, since many attributives can be used in various ways syntactically, and there is much overlapping of categories.

13.2. Descriptive stems may be monosyllabic, disyllabic, and reduplicated of the same patterns

as noun stems. Most descriptive themes are simple stems and include such words as wʌ· *good, pretty,* ɸábaɸ *red,* hókoš *hot,* pópo *white,* súksuk *cold,* and the like. A few are compounded of two descriptive stems, e. g., pòhaɸábaɸ *pink* (póha *faded*+ɸábaɸ *red*). In some cases a descriptive may function as a noun, with nonthematic affixation of nouns, e. g., ʔiŋwÁ·mʌ *with your goodness.* A descriptive may also occasionally be given a noun plural suffix, e. g., ɸábaɸyah kaŋ *red tigers* (ɸábaɸ *red,* -yah pl. suf., kaŋ *tiger*). Some descriptives ending in a vowel have a combining form like that of nouns (10.1), used when they are compounded or suffixed, e. g., pophúktʌ *candle* (popcomb. form of pópo *white*+húktʌ *fire*).

13.3. Locators usually are stereotyped forms of a bound stem plus the noun indirective case suffix -mʌ (12.6). A thematic prefix ʔaŋ- probably equivalent to the noun thematic prefix (10.5) is often found with words of this category. Some of the most common locators are: yúkmʌ *above,* múhmʌ *in the center,* kúkmʌ *in the center, halfway,* hóhmʌ *deep,* huʔmʌ *far,* ʔaŋsÁkmʌ *outside,* ʔaŋwÁ·mʌ *to the right, right hand* (wʌ· *good*), ʔaŋnáymʌ *to the left, left hand.* The suffix -wiñ is attached to two noun stems to form locators: nášwiñ *down, below* (nas *earth*), sÁŋwiñ *up, above* (sʌŋ *sky*). As noun modifiers locators are freely compounded following a noun theme (10.20).

13.4. Tensors are monosyllabic or disyllabic themes, some with a suffix -ʌk. Most commonly they are used adverbially to give a time orientation to the modified verb or phrase. Some of the most common tensors are wíñʌk *long ago,* hésʌk *then, when,* matÁk *yesterday,* hóymʌ *today,* ʔídʌk imperfective tensor, ʔókmʌ *afterwards, then,* hóbiť *soon,* sÁʔʌp *now.* A tensor may occasionally modify a noun, e. g., wìñʌk pÁ·šiñ *men of long ago.*

13.5. Intensifiers are most commonly used adverbially. They indicate concepts such as "very" and "also." Some intensifiers are stereotyped forms of a stem plus an enclitic. Some of the most common are: ɸam *very,* ʔága (ʔági, ʔáki) *very, how,* meš *also,* éya *also,* éybʌk *again* (enc. -pʌk), káktim *also* (enc. -ťim).

13.6. Demonstrative adjectives are the demonstrative pronouns used as noun modifiers: yʌʔp *this* (*this one*), peʔm *that* (*that one*), and túŋgak which varies with túŋgam *another.* The third person pronoun heʔ *he, she, it* should also be included here in its usage as the definite article. The demonstrative adjectives, except túŋgak/túŋgam, and the definite article may be given the pluralizing suffix -yah. Demonstrative adverbs are yʌʔm *here,* hem *there,* hémʌk *there,* héʔšʌk *there.*

13.7. Interrogatives include both simple stem and compound stem interrogatives, two formed with a thematic suffix -ɸaŋ, and one consisting of a stereotyped form of stem plus the noun indirective suffix -mʌ (12.6). The interrogative adjectives are hup *which* (also inter. pron.) and huʔɸ *what kind of, how,* which may also be used adverbially. Interrogative adverbs are húɸmʌ *to where,* ťíʔiga *why* (ťi inter. pron. "what" + ʔiga conj. *that*), huʔť *where,* húɸaŋ *to where, how much,* ťíčaŋ, *how is it that, to what* (ťi inter. pron. "what"). Most interrogatives may also be used as relatives.

13.8. There are several quantitative adjectives which have a thematic suffix -aŋ or -pʌy.

hésaŋ, *this much, this many*
ʔúšaŋ *a little*
háʔyaŋ *much, many*
húɸpʌy *how much, what size*

13.9. There are two negatives, ďa and ʔódoy. ďa is used in all but modal clauses. ʔódoy is the modal negative, used in imperative phrases and subjunctive clauses. A compound theme ďakéman means "never."

13.10. Conjunctions are simple stem and compound stem themes, and stereotyped themes of a stem plus an enclitic. Some of the most common conjunctions are ʔiga *that, as,* húnum *since, as,* ígaťim *it is that,* ʔíganam *while,* heʔyúkmʌ *for this, that is why* (heʔ 3d pers. pron. + yúkmʌ *above, on*), hésʌk *when,* mu (ma, mo, mi) *when,* ʔi *and* (probably Sp. "y"), méʔiga *if* (ʔiga *that*), méʔďa *if not,* ťíʔiga *because* (ťi rel. pron. "what" + ʔiga *that*).

13.11. Interjections include phrase words as hʌ *yes,* ďa *no,* mop *certainly,* and ʔay exclamatory.

13.12. Participial adverbs are formed from verb themes plus the suffix -ímu, e. g., šikímu *laughing* (*šik *laugh*).

14. ENUMERATIVES

14.1. Popoluca numbers beyond six have been replaced by Spanish. Numerals (except "one") are always composed of a bound stem plus nonthematic affixes. There are two suffixes for cardinal enumeration. These seem roughly to divide into temporal and objective categories. There are, however, many exceptions, so that it

can only be said that some nouns always are modified by numerals with one suffix and other nouns by numerals with the other suffix. Pronominal enumeration such as "both of us" or "all three of them" is done by means of both prefixation and suffixation, while adverbial enumeration is accomplished by means of suffixation alone.

14.2. The enumerative suffix -ten is attached to all numeral stems except tum *one* for counting when no noun is modified, and for enumerating objects, usually nontemporal.

1. tum	4. maktastén
2. wastén	5. mostén
3. tukutén	6. tuhtutén

Examples of use:

wastèn čí·mpa *two dogs*
hè?m tukutén *the three*
maktastèn pá·šiñ *four men*
mostè?n ámĭu *five years* (?ámĭu *year*)
wastèn háma *two suns* (cf. 14.3)

14.3. The suffix -na is used in enumeration of nouns, usually but not always periods of time.

wasnà háma *two days*
maktasnà šemána *four weeks* (Sp. "semana")
tukunà túmin *three coins*
mosnà ?aŋnáka *five sides*
wahñà háyi *many words* (wah- < waĭ- [ĭ > h 4.8] comb. stem. of wáti *many*)
wasnà kukéha *two (o'clock in the) morning*

14.4. Pronominal enumeration is accomplished by means of both prefixation and suffixation, and may be translated "all (number) of us, you, them." All pronominal numerals are given one of the possessive pronominal prefixes followed by the prefix ku- (k- or kuk- before the stem "two"). Only the number "two" is given a special suffix, -tʌk. (The suffix -tʌk also is given to the stem was- in its use as a tensor followed by the noun ind. suf. -mʌ < wastákmʌ *day after tomorrow*, cf. maták *tomorrow*.) The other numeral stems are unsuffixed (save for the plural suffix) except "five" which retains the enumerative suffix -ten.[7] First person pronominal numerals, like verbs, may be either inclusive or exclusive. The inclusive numerals (including the person or persons addressed) are given the plural possessive pronominal prefix tan-, while the exclusive numerals (excluding the person or persons addressed) are given the possessive pronominal prefix ?an- and the plural suffix -tam. The second person numerals are given the possessive pronominal prefix ?iñ-, and may or may not be given the plural suffix -tam. The third person numerals are given the possessive pronominal prefix ?i-, and may or may not be given the plural suffix -yah. The enumerative túmpʌy "all" lacks the prefix ku-.

taŋkwástʌk *both of us* (incl.) (was- stem of "two" + -tʌk)
?aŋkumáktastam *all four of us* (excl.) (máktas- stem of "four")
taŋkumostén *all five of us* (incl.) (mos- stem of "five")
?iŋkwástʌk *both of you*
?iñtúmpʌytam *all of you*
?ikumáktasyah *all four of them*
?aktáŋpa ?ikukwástʌk he?m pá·šiñ *both of the men fall* (?aktáŋpa *he (they) fall(s)*, hè?m pá·šiñ *the man (men)*)

14.5. Adverbial enumeratives are given the suffix -kʌy.

wáskʌy *twice*
máktaskʌy *four times*
wátkʌy *many times* (wáti *many*)

15. ENCLITICS

15.1. There are a few one-syllable enclitics which may be attached to a formally complete word of any class to qualify or intensify the significance of the word or phrase. In the case of a few attributives the stem is never used without the enclitic. Substantives with a combining form use the combining form when an enclitic is attached.

15.2. The temporal or limiting enclitics. The morphemes -?am, -m, -um, -om, -wum, and -wom are most conveniently described as variants of the same enclitic, temporal when attached to verbs or verbalized nouns, and temporal or limiting when attached to nouns, pronouns, and attributives (no form has been noted attached to enumeratives). Although the only constant feature of this enclitic is the final -m, the meaning, though somewhat variable in English translation, is constant, and may usually be translated by the Spanish "ya," which in English must be interpreted variously according to the context as "just," "already," "truly," "only," or "now."

The variant -?am is used after nouns, pronouns, stative verbs, verbs with the nonthematic incompletive suffix -p, verbs with the nonthematic

[7] The extreme irregularity of this inflectional system in contrast with the great regularity which characterizes the rest of Popoluca morphology would lead one to believe that it has broken down through the infiltration of Spanish numerals.

subjunctive suffix -ʔiñ, verbs with the agentive suffix -wʌ́ʔʌp, and most attributives.

ʔʌ́čam *just I* (or, "I am the one who") (ʔʌč *I*)
sʌ̀ʔʌp nùma wʌ́·ʔam *now certainly it is truly good* (wʌ· *good* st. verb)
sʌ́ʔʌbam *right now* (sʌ́ʔʌp *now*)
hésʌgam *just then* (hésʌk *then*)
ʔiga ʔíd̆iʔñam *that he should then be there* (ʔiga *that* + *ʔiɨ̆ *be [there]* + -ʔiñ subj. suf. + -ʔam)
hèʔ iɳhám ʔiga kùʔn iháʔyʌgam ʔikyúʔmiñ *he believed that just with his little brother-in-law he should boil it* (ʔiháʔyʌk *his little brother-in-law*)
ʔawʌʔá·bam *I am already able* (wʌʔá·p *I am able*)
kuʔtá·bam *it is just eaten* (kuʔtá·p *it is eaten*)

The variant -m is used after verbs with the imperative suffix -ʌ and words ending in a, of which those ending in the incompletive verbal suffix -pa are the most frequent. It is also used after the negative ʔódoy which loses the final y, ʔódom *not anymore*, and sometimes after the definite article heʔ.

ʔúkʌm *just drink!* (ʔúkʌ *drink!*)
nʌ́kpam nʌ́ʔm *he is just going to the water* (nʌ́kpa *he is going*)
ʔamóɳpam *I will just sleep* (ʔamóɳpa *I sleep, I will sleep*)
d̆am *already not* (d̆a *not*)
hèʔm píyu *just the chicken* (heʔ def. art.)

The variant -um is used after a few attributives.

hémum *just there* (hem *there*)
yʌ́ʔmum *just here* (yʌʔm *here*)

The variant -om is used after the linear nonthematic verbal suffixes -wʌm and -pam (8.9) and the perfective suffix -neʔ (8.3).

ʔiñʌkwʌ́mom *just as he was going* (*nʌk *go*)
ʔiñʌkpámom *just as he is going*
ʔanʌknéʔom *I had just gone*
mimoɳnéʔom *you had just slept* (*moɳ *sleep*)

The variants -wom and -wum vary freely after a· (as the passive suffix -ta· and the verbalizing suffix -ʔa·).

nanʌktá·wom *he was just taken* (*nanʌk *take*)
ʔačiʔt̆á·wum *I was just given* (*ciʔ *give*)
wʌʔá·wum or wʌʔá·wom *he was then able* (*wʌʔá· *be able*)

After any verbal form other than those stated above, -um, -om, -wum, or -wom may be used interchangeably, although -wum and -wom are most frequently found following nasals, and -um is perhaps the form most frequently used.

ʔanʌ́kum *I just went*
móɳom *he just slept*
tapʌstáʔɳwom *we* (gen. incl.) *just arrived* (-taʔm pl. suf.)
ʔanakkaʔtʌ́pum *I just meant to kill him* (-tʌp purp. suf.)

15.3. The temporal enclitic -nam may be translated as "yet" or "still" (Sp. "todavía").

d̆ánam *not yet* (d̆a *not*)
ʔíñam *who still* (ʔi *who*)
ʔíganam *while* (ʔiga *that*)
ʔanaɳhamnéʔnam *I had still believed it* (ʔanaɳhamnéʔ *I had believed it*)
ɸʌʔyñéʔnaʔm aɳko·bákt̆ʌk *my hat had still remained* (ɸʌʔyñéʔ *it had remained*)
hèʔnaʔm ammáʔypa *still it I will sell* (héʔ *it*) (more freely, *this yet remains for me to sell*)

15.4. The limiting enclitic -t̆im usually may be translated by "only," "then," or "just."

ʔʌ́čt̆im *only I* (ʔʌč *I*)
hèʔt̆im háma *just this day* (heʔ *the*, háma *sun*)
ʔipákt̆im ɸʌ́ʔy *only his bones remained* (ʔipák *his bones*)
ʔóyt̆im *then he went* (*ʔoy defective verb "go" used only in compl. asp.)

15.5. The particularizing enclitic -pʌk most commonly is attached to attributive forms, and less frequently to nominal, pronominal, or verbal forms. A special usage is that of the formation of a temporalized noun by the suffixation of the enclitic -pʌk to a nominalized verb (with the suffix -i, see 10.9). -pʌk may be translated as "that which (is)," "he who (is)," or "having the quality of."

wʌ̀·bʌk pʌ́·šiñ *a good man* (wʌ· *good*)
mʌ̀hpʌk čí·mpa *a large dog* (mʌh *large*)
minatitlánpʌk *one from Minatitlan*
héʔm d̆àpʌk iɳɸó·ɳ *he who didn't answer* (heʔm *he* + d̆a neg. + pʌk + ʔiɳɸó ɳ *he answered*)
ʔimpátnèʔ wʌ́·bʌk *you have found that which is good* (ʔimpatnéʔ *you have found*)
ʔimatoɳpákpʌk *he who listened* (ʔimatoɳpák *he listened*)
ʔammóɳipʌk héšpam hèʔm ɸuʔyá· *after I went to sleep thus it became night* (ʔan- 1st. per. pos. p. pref. + *moɳ *sleep* + -i nom. suf. + -pʌk, modif. héšpam *it is thus*)
ʔišé·t̆ipʌgaʔm ipátpa hèʔm pʌ́·šiñ *just after his return he met the man* (ʔi- 3d. per. pos. p. pref. + *se·t *return* + -i + -pʌk + -ʔam enc. "just," modif. ʔipátpa *he met him*)

15.6. There are two quotative enclitics which may be attached after any word in a quoted phrase. The first person quotative is -wey *I said, I say*, and the third person quotative is -ʔun *he said, he says, it was said, it is said.*

d̆áʔun *he says "no"* (d̆a neg. at.)
miñʌ́kpaʔun *he says "are you going?"* (miñʌ́kpa *you are going*)

ďáwey *I said "no"*

ʔiʔuʔn iññáyi *he says "what is your name?"* (lit., "who," he says, "is your name") (ʔi *who* + -ʔun + ʔiññáyi *your name* [is])

ʔiʔúkpaʔun nʌ́ʔ *it is said that he drinks water* (ʔiʔúkpa *he drinks*, nʌʔ *water*)

15.7. The enclitic -ʔam often is attached after the enclitic -pʌk, e. g., máhpʌgam *he is already big.* The enclitic -ťim occasionally follows -pʌk, e. g., ʔéybʌkťim *just again.* These are the only constructions in which two enclitics have been observed together.

SYNTAX

16. GENERAL REMARKS

16.1. Popoluca word classes, which have been discussed from the standpoint of the morphological processes used in their formation, serve syntactically according to their various functions. Verbal forms function as predicative words in simple sentences, or in main modifying or subordinate clauses. Independent pronouns and nouns serve as independent subjects and objects. Certain nouns also may serve as verb modifiers. Attributives serve as noun or verb modifiers or phrase or word connectives. Enumeratives serve as noun or verb modifiers or as independent subjects or objects.

These syntactic elements are combined into clauses of various types. Main clauses are formed as simple sentences except in constructions with contemporaneous and gerundial clauses where the structure of the main clause verb undergoes certain changes. Modifying clauses are juxtaposed or connected with a main clause by a conjunction or a relative attributive. Subordinate clauses may be agentive, contemporaneous, or gerundial. Word order is not rigid, but certain rules may be laid down within the bounds of which syntactic elements may be combined into phrases.

17. THE SIMPLE SENTENCE

17.1. The simple sentence must contain one, and not more than one, predicative verbal form, which may be either a verb theme with nonthematic affixes, or a stative verb. Other words may be incorporated into the simple sentence in their functions as subjects, objects, or modifiers of the verb, subject, or object.

ʔapáˑšiñ *I am a man* (the noun páˑšiñ verbalized)

miñʌkné?om *you have just gone* (*nʌk *go*)

nʌʔmayťáˑp *it is said* (*nʌʔmáʔy *say to*)

kàʔneyáhum *they have just died* (*kaʔ *die*)

wìñʌk hèʔm kóˑya ʔikúʔtpa šánťa *a long time ago the rabbit was eating watermelons* (wíñʌk *a long time ago* + heʔm *the* + kóˑya *rabbit* + ʔikúʔtpa *he eats* + šánťa *watermelon* [Sp. "sandía"])

hèmum pútpa wʌstèʔn iñčíˑmpa *right there your two dogs will come out* (hémum *right there* + ʔipútpa *he* [*they*] *will come out* + wʌstén *two* + ʔiñčíˑmpa *your dog*[*s*])

sàʔʌp impʌ́kpa yʌ̀ʔp páˑšiñ *now you will marry this man* (sʌ́ʔʌp *now* + ʔimpʌ́kpa *you will marry him* + yʌʔp *this* + páˑšiñ *man*)

ʔʌc yʌ̀ʔm amóŋpa *I am sleeping here* (ʔʌč *I* + yʌʔm *here* + ʔamóŋpa *I sleep*)

hèsʌk nʌ́kum ihàˑtuŋkáʔm *then he just went to his father* (hésʌk *then* + nʌ́kum *he just went* + ʔihàˑtuŋkáʔm *to his father*)

wìñʌk hèʔam ɸáˑšťam ininʌ́k ičùñháˑtuŋ *a long time ago only the children went with their stepfather* (wíñʌk *a long time ago* + héʔam *only the* + ɸáˑšťam *children* + ʔininʌ́k *he* [*they*] *went with* + ʔičùñháˑtuŋ *his* [*their*] *stepfather*)

ʔòkmʌ nʌkyáhpa hèmʌk hòhmʌ húmñi *then they go there deep in the forest* (ʔókmʌ *then* + nʌkyáhpa *they go* + hémʌk *there* + hóhmʌ *deep* + húmñi *forest*)

meʔɸtáˑwom tùm yóˑya ʔi tùm šíš i tùm čóˑmo *a pig and a bull and an old woman were then searched for* (meʔɸtáˑwom *were then searched for* + tum *a* + yóˑya *pig* + ʔi *and* + tùm šíš *a bull* + ʔi *and* + tùm čóˑmo *an old woman*)

17.2. Interrogative sentences generally are not distinguished syntactically from other simple sentences. A slightly rising intonation on the final word may be the only indicator of a question. Some questions are, however, preceded by an attributive, ke, which probably is derived from the Spanish "qué."

kè póypa sáwa *is it windy?* (lit. "does the wind run?")

kè móŋpa *is he asleep?*

18. MODIFYING CLAUSES

18.1. Clauses modifying verbs are of three types: those which are juxtaposed preceding or following a main clause; those which precede or follow a main clause and are introduced by a conjunction; and those which precede or follow a main clause and are introduced by a relative pronoun or attributive. A relative clause may modify a

noun which it follows. In all types of modifying clause construction the main clause is formed like a simple sentence.

JUXTAPOSED CLAUSES

18.2. The perceptive clause. In this type of construction the action of the subordinate verb takes place simultaneously with and is seen or heard by the subject of the main verb. The subordinate verb is best translated by the English present participle. The two clauses may be merely juxtaposed rather than connected by an attributive, and both are formed like simple sentences.

ʔiʔíˑšpa míñum ¢àbaɕ káɳ *he sees a red tiger coming* (ʔiʔíˑšpa *he sees* + míñum *it just comes* + ¢ábaɕ *red* + kaɳ *tiger*)

ʔiʔíˑšpa sʌ̀ʔʌp išéʔt sámñi *he now sees bananas frying* (ʔiʔíˑšpa + sʌ́ʔʌp *now* + ʔišéʔt *it fries* + sámñi *banana*)

ʔimatóɳpa ťíñpa *he hears it making a noise* (ʔimatóɳpa *he hears* + ťíñpa *it makes a noise*)

ʔimatónpa ʔaʔɳáʔypa tʌ́k *he hears a house (door) open* (ʔimatónpa + ʔaʔɳáʔypa *it opens* + tʌk *house*)

18.3. The juxtaposed discourse clause. Clauses of direct discourse, and occasionally of indirect discourse, are preceded in the main clause by some form of the verbs *nʌm *say* or *nʌʔmáʔy *say to*, and may be juxtaposed following the main clause. Both clauses are formed like simple sentences.

nʌ́mpa hèʔm pʌ́ˑšiñ pòs iniʔíť tùm ¢úkťiñ *the man says, "well, she has a birthmark"* (nʌ́mpa *he says* + hèʔm pʌ́ˑšiñ *the man* + pos *well* [Sp. "pues"] + ʔiniʔíť *she has* + tùm ¢úkťiñ *a birthmark*)

nʌ́mpa hùʔď aknúknetàˑ húktʌ *he says, "where has fire been gathered?"* (nʌ́mpa *he says* + huʔť *where* + ʔaknùknetáˑ *it has been gathered* + húktʌ *fire*)

18.4. The juxtaposed stative verb clause. Stative verb clauses may be juxtaposed preceding or following a main clause.

ùna ves mimʌhtáʔmam yòʔmʌyťáˑwom *once you are big you will then be married* (mimʌhtáʔmam *you are big* st. verb, yòʔmʌytáˑwom *you will then be married* [lit. "you were then wived"])

ďà wʌ́ˑ ʔan¢ʌ́k *it is not good to take it* (lit. "it is not good I took it") (wʌˑ st. verb *it is good*, ʔan¢ʌ́k *I took it*)

mìč ìñam mipʌ́kpa ¢àm mikuťíñ *you, who still will marry you, you (who) are so lazy?* (mipʌ́kpa *he will marry you*, mikuťíñ *you are lazy* st. verb)

18.5. The juxtaposed temporal clause. A clause giving a time reference to a main clause may be juxtaposed preceding it.

núkpa kùgapáma wíʔkpa *at noon they will eat* (lit. "noon arrives, they eat") (núkpa *it arrives* verb of subordinate clause modif. wíʔkpa *they will eat*)

CLAUSES INTRODUCED BY A CONJUNCTION

18.6. Clauses introduced by a conjunction may either precede or follow a main clause. Both clauses are formed like simple sentences. The conjunction ʔiga *that, as*, is often used to introduce indirect discourse clauses (occasionally direct discourse) as well as subjunctive and other clauses.

ʔʌ̌č aʔíťuʔm iga ʔakuʔttáˑp *I am just here that I be eaten* (ʔʌ̌č *I* + ʔaʔíťum *I am just here* + ʔiga *that* + ʔakuʔttáˑp *I am eaten*)

sìʔiga mìčam inikkáʔ miŋkoʔmʌ́ʔypa *if you (are the one who) killed him, she will marry you* (síʔiga *if* (Sp. "si") + míčam *you (are the one who)* + ʔinikkáʔ *you killed him* + miŋkoʔmʌ́ʔypa *she will marry you*)

ʔaknaˑstáˑ ʔa cabáyo porkeťíʔiga mʌgóʔy *he was passed on a horse* (fig. "torn apart by horses") *because he deceived* (ʔaknaˑstáˑ *he was passed* + ʔa cabáyo *on a horse* [Sp.] + porkeťíʔiga *because* (Sp. "porque") + mʌgóʔy *he deceived*)

simaďa ʔančíˑmpa ďa ʔapʌ́ˑspa *if (it were) not for my dogs I would not revive (myself)* (simaďá *if not for* [Sp. "si"] + ʔančíˑmpa *my dog(s)* + ďa neg. + ʔapʌ́ˑspa *I revive [myself]*)

kun hèʔaʔm ihúypa pàraʔiga ʔikúʔtpa *with it he buys something so that he eats it* (kun *with* (Sp. "con") + héʔam *it* + ʔihúypa *he buys it* + pára*ʔiga *so that* (Sp. "para") + ʔikúʔtpa *he eats it*)

mèʔiga ʔiŋwʌ̀ʔaŋhám ʔʌ̀čam mampʌ́kpa *if you like I will marry you* (méʔiga *if* + ʔiŋwʌ̀ʔaŋhám *you like* + ʔʌ́čam *I [am the one who]* + mampʌ́kpa *I will marry you*)

nʌ́mpa ʔaŋhagóʔyi ʔiga tammáɸpa pèʔm pʌ́ˑšiñ *the authority says that "we will seize that man"* (nʌ́mpa *he says* + ʔaŋhagóʔyi *the authority* ["public official"] + ʔiga *that* + tammáɸpa *we* [lim. incl.] *will seize* + peʔm *that* + pʌ́ˑšiñ *man*)

ʔanʌ́mpa ʔiga ʔanʌ́k *I said that I went* (ʔanʌ́mpa *I said* + ʔiga + ʔanʌ́k *I went*)

nʌ́mpa ʔiga ďa nʌknéʔ *he says that he has not gone* (nʌ́mpa *he says* + ʔiga + ďa neg. + nʌknéʔ *he has gone*)

ʔakpútpa ʔiga nʌ́giñ *she made him leave that he might go* (ʔakpútpa *she made him leave* + ʔiga *that* + nʌ́giñ *he might go*)

wiʔktáʔmum mánʌk mipʌˑtáʔmiñ *eat, children, that you may get fat!* (wiʔktáʔmum *eat!* [pl. imp.] + mánʌk *child* + mipʌˑtáʔmiñ *that you* [pl.] *may get fat*)

hèʔ iŋháʔm iga ʔikyúʔmiñ *he believed that he should boil it* (heʔ *he* + ʔiŋhám *he believed* + ʔiga + ʔikyúʔmiñ *he should boil it*)

RELATIVE CLAUSES

18.7. Relative attributives and pronouns may introduce modifying clauses which are otherwise

formed like simple sentences. The relative clause generally but not always follows the main clause. A relative clause modifying a noun directly follows the noun.

ʔì **dúŋ** hùʔǐ kʌ́·npa sámñi *who knows where it smells of bananas* (ʔi **dúŋ** *who knows* + huʔǐ *where* + kʌ́·npa *it smells* + sámñi *banana*)

ďa ʔaʔniˑšpʌ́kpa hùʔɸ́ hèsʌk yú·mpa *I don't know how (it is) when it boils* (ďa ʔaʔniˑšpʌ́kpa *I don't know* + huʔɸ́ *how* + hésʌk *when* + yú·mpa *it boils*)

ʔaʔná·pa ďa ʔiwʌ̀ʔaŋháʔm ì ʔamàgoyáʔypa *my mother doesn't like who (ever) deceives me* (ʔaʔná·pa *my mother* + ďa ʔiwʌ̀ʔaŋhám *she doesn't like him* + ʔi *who* + ʔamàgoyáʔypa *he deceives me*)

ʔaŋkupʌ́k húbam mìč annʌʔmáʔy *I believed that which you said to me* (ʔaŋkupʌ́k *I believed* + húbam [hup < *which* + -ʔam enc. "just"] + mìč annʌʔmáʔy *you said to me*)

ʔaʔniˑšpʌ́kpa ǐì ʔiniʔíǐ *I know what you have* (ʔaʔniˑšpʌ́kpa *I know* + ǐi *what* + ʔiniʔíǐ *you have*)

mìč miñʌ́kpa kʌ·póm ǐ̀mʌ tanakkúŋpa ʔá·ñi *you will go to (get) firewood with which we will cook tortillas* (ǐ̀mʌ *with which* intro. clause modif. kʌ́·pi *firewood* [kʌ·póm *into the firewood* < kʌ·p- comb. form of kʌ́·pi + -hom loc. suf.])

hèʔam iwʌ̀·ɸagáʔypa ʔičéʔs hùʔǐ móŋpa *she fixes his bed where he will sleep* (huʔǐ *where* intro. clause modif. ʔičéʔs *his bed*)

19. SUBORDINATE CLAUSES

19.1. There are three principal types of subordinate clauses: agentive, contemporaneous, and gerundial. The main clause in an agentive clause construction is formed like a simple sentence, but the verb of the main clause in certain contemporaneous and gerundial constructions must undergo morphological modifications in structure.

AGENTIVE CLAUSES

19.2. The verb of the agentive clauses is formed with the agentive suffixes -páʔap (incompletive) and -wʌ́ʔʌp (completive), and the transitive or intransitive pronominal prefixes in accordance with the inherent transitivity or intransitivity of the verb theme. Both main and agentive clauses are formed like simple sentences and either may precede the other. An agentive clause subordinate to a noun must follow the noun.

ná·spa ʔimaʔypáʔap paléna *one who sells brown sugar passes (by)* (ná·spa *he passes* + ʔimaʔypáʔap *one who sells* + paléna *brown sugar* [Sp. "panela"])

ďa ʔiʔiˑšpʌ́k si hèʔam pʌ́·šiʔñ iñʌʔmayñewʌ́ʔʌp *she doesn't know if it is the man who has spoken to her* (ďa ʔiʔiˑšpʌ́k *she doesn't know* + si *if* [Sp. "si"] + hèʔam pʌ́·šiñ *the man* + ʔiñʌʔmayñewʌ́ʔʌp *he who has spoken to her*)

hèʔm pʌ́·šiñ hèʔm iŋɸo·ŋwʌ́ʔʌp mòʔŋaŋhakyáhpa *the men, those who answered, remained asleep* (hèʔm pʌ́·šiñ *the man [men]* + heʔm *he [they]* + ʔiŋɸo·ŋwʌ́ʔʌp *he [they] who answered* + mòʔŋaŋhakyáhpa *they remained asleep*)

hèmuʔm iniʔíǐ hèʔm pák ikkaʔwʌ́ʔʌp *there he had the bone which had killed him* (hémum *there* + ʔiniʔíǐ *he had* + hèʔm pák *the bone* + ʔikkaʔwʌ́ʔʌp *that which killed him*)

CONTEMPORANEOUS CLAUSES

19.3. There are two types of contemporaneous sentence constructions. In the first the action of the subordinate verb is linear, and that of the main verb punctual. In this case the subordinate verb theme is given special suffixes. In the second type the action of both subordinate and main verbs is linear, and the two clauses are joined by a conjunction. In both types the pronominal prefixes undergo changes.

19.4. Linear-punctual contemporaneous clauses. The action of the subordinate verb is linear while that expressed by the main verb is punctual. The subordinate verb theme is given the suffix -wʌm if the action is completive in aspect, and -pam if the action is incompletive (8.9). The transitive pronominal prefixes are used with the subordinate verb theme regardless of the normal transitivity or intransitivity of that verb. When the conjunction ma (mo, mu, mi) (13.10) *since, when* is used to introduce the main clause, the transitive pronominal prefixes are also always attached to the main verb theme.

ʔaŋwiʔkwʌ́m núkpa tùm pʌ́·šiñ *when I had been eating a man arrived* (ʔan- 1st. per. sub. 3d. per. obj. t. p. pref. + *wiʔk *eat* (i. theme) + -wʌm + núkpa *he arrives* + tùm pʌ́·šiñ *a man*)

ʔiʔña?mpáʔm iʔníˑšpa tùm pʌ́·šiñ *as you were looking you saw a man* (ʔiñ- 2d. per. sub. 3d. per. obj. t. p. pref. + *ʔaʔm *look* [t. theme] + -pam + ʔiʔníˑšpa *you saw* + tùm pʌ́·šiñ)

ʔičìhoʔywʌ́mom túh hèsʌk anúk *it was already raining when I arrived* (ʔi- 3d. per. sub. and obj. t. p. pref. + *čihóʔy *keep hitting* [i. theme] + -wʌm + -om enc. "already" + tuh *rain* + hésʌk *when* + ʔanúk *I arrived*)

ʔičìhoʔypám túh mu ʔannúk *it was raining when I arrived* (ʔan- 1st per. sub. 3d. per obj. t. p. pref. + *nuk)

ʔanɸukumwʌ́mom ʔaʔníˑšpa tùm číˑmpa *just as I got up I saw a dog* (ʔan- + *ɸukúm *arise* [i. theme] + -wʌm + -om + ʔaʔníˑšpa *I saw* + tùm číˑmpa *a dog*)

19.5. Linear-linear contemporaneous clauses. The action of both subordinate and main verbs is durative rather than punctual. The conjunction ma (mo, mu, mi) usually is used to introduce the main clause, and the pronominal prefix of the main verb must be transitive.

ďa wʌ?á· mo ?ikód iñáka *he could not put on his skin* (ďa wʌ?á. *he could not* + mo + ?i- 3d. per. sub. and obj. t. p. pref. + *kot *put on* [t. theme] + ?iñáka *his skin*)

šíkpa mi ?iñʌ́k *he laughed as he went* (šíkpa *he laughed* + mi + ?i- + *nʌk *go* [i. theme])

?aŋwéhpa ?iñʌ́k *shouting he went* (?aŋwéhpa *he shouts* + ?iñʌ́k *he went*)

ma ?aŋwíť káya ?a?ní·š ukkú?wih *as I walked in the street I saw drinkers* (ma + ?an- 1st. per. sub. 3d. per. obj. t. p. pref. + *wiť *walk* [i. theme] + # compl. suf. + káya *street* [Sp. "calle"] + ?a?ní·š *I saw* + ?ukkú?wih *drinkers*)

hè?m iwÀ?aŋhá?m ikék *he likes to fly* (he?m *he* + ?iwÀ?aŋhám *he likes it* + i- + *kek *fly* [i. theme])

pè?m hón kèkpa ?išʌ́? *that bird flies when it goes along* (pè?m hón *that bird* + kékpa *it flies* + ?i- + *sʌ? *go along* [i. theme])

hè? ďa wʌ?à· ?imóŋ ɕú?mʌk *he couldn't sleep last night* (he? *he* + ďa wʌ?á· *was not able* + ?i + *moŋ *sleep* [i. theme] + ɕú?mʌk *last night*)

ťì?iga ďa wʌ?à·p imíñ *why can't he come?* (ťí?iga *why* + ďà wʌ?á·p *he is not able* + ?i- + *miñ *come* [i. theme])

ma ?ansé?t sámñi tóypa ?íďʌk aŋkó·bak *as I fried bananas my head was aching* (ma + ?an- + *se?t *fry* [t. theme] + sámñi *banana* + tóypa ?íďʌk *it was aching* + ?aŋkó·bak *my head*)

GERUNDIAL CLAUSES

19.6. Gerundial clauses are resultative and conditioned. The main and subordinate verbs have the same subject. The chief characteristic of gerundial constructions is that the pronominal prefixes of both main and subordinate verbs undergo certain changes such as loss of pronominal prefixes or shifts from the intransitive to the transitive forms, and that the gerundial verb has one of the gerundial suffixes (8.2).

19.7. Resultative gerundials. The action of the resultative gerundial is the result or purpose of the main verb. The construction differs for transitive and intransitive gerundial verbs. The main verb used in these constructions is always intransitive, and usually expresses such a concept as going, coming, beginning, or finishing. The first person imperative construction is of the same type, although the main verb is defective in that it is only found in this one type of construction. This imperative verb is te·. In this imperative construction the first person inclusive pronominal prefixes (7.2, 7.5, 8.4) are always attached before the stem of the gerundial verb.

19.8. Intransitive resultative gerundials. The main verb takes the regular aspect or imperative suffixes, and no pronominal prefix. The gerundial verb retains the regular intransitive pronominal prefixes and is given the gerundial suffix -i. The plural verbal suffixes may also be attached, in final position, to the gerundial verb.

nʌ̀kpa mi?íťi *you go (somewhere) to live* (*nʌk *go* + -pa inc. suf. + mi- 2d. per. i. p. pref. + *?iť *live* + -i)

mòh èčiyáh *they began dancing* (*moh begin + *?eɕ *dance* + -i + -yah pl. suf.)

mìñ tawí?ki *we* (incl.) *came to eat* (*miñ *come* + ta- 1st. per. lim. incl. pl. i. p. pref. + *wi?k *eat* + -i)

tè· dawí?ki *let's eat*

tè· damóŋi *let's sleep* (moŋ *sleep*)

mòh aŋwéhi *he began to shout* (*?aŋwéh *shout*)

nʌ̀gʌ mikó·ñi *go and sit down!* (nʌk *go* + -ʌ imp. suf. + mi- 2d. per. i. p. pref. + *ko·ñ *sit down* + -i)

nʌ̀kpa ?ayó?yiťam *we* (excl.) *are going to jump* (nʌ́kpa + ?a- 1st. per. i. p. pref. + *yo?y *jump* + -i + -tam pl. suf.)

19.9. Transitive resultative gerundials. The main verb stem takes the regular aspect or imperative suffixes, but no pronominal prefixes. The gerundial verb stem takes the transitive pronominal prefixes, the zero gerundial suffix, and the plural suffixes, except that in the third person the pronominal prefix ?i- may be omitted and the gerundial suffix -i attached to the subordinate verb theme. The plural suffixes are always in final position. Passive gerundials may have either the completive or the incompletive suffixes, and are given, as are the active verb stems, the regular transitive pronominal prefixes. Transitive gerundials with imperative inflection omit the pronominal prefixes for both main verb and gerundial.

Active gerundials:

mòh ihʌ́·s *he began to think* (*moh *begin* + # compl. suf. + ?i- 3d. per. sub. and obj. t. p. pref. + *hʌ·s *think* + # ger. suf.)

mòh iwát or mòh wáťi *he began to do it* (*wat *do*)

yàh iťopyáh *they finished taking it out* (*yah *finish* + # compl. suf. + ?i- + * top *take out* + # ger. suf. + -yah pl. suf.)

mìñ manakwák *I came to ask you* (*miñ come + # compl. suf. + man- 1st. per. sub. 2d. per. obj. t. p. pref. + *?akwák *ask* + # ger. suf.)

mìñ ta?ná?m *we came to look* (*min + # compl. suf. + tan- 1st. per. sub. 3d. per. obj. lim. incl. pl. t. p. pref. + *?a?m *look* + # ger. suf.)
tè· da?ná?m *let's look*
tè· dammé?ɸ *let's search* (*me?ɸ *search*)

Passive gerundials:

mòh imò?gʌyǐá·p *he began to be teased* (*moh + # compl. suf. + ?i- + *mo?gʌ́?y *tease* + -ta·p inc. pas.)
mòh imò?gʌyǐá· *he began to be teased.* This form has the completive passive suffix -ta·. There is no good direct English translation to express the difference between the two concepts.
mìñpa ?i?a?mtá· *he was come to see.* (In English this is best translated as "he was visited" or "they came to see him".) (*miñ *come* + -pa inc. suf. + ?i- + ?a?mtá· *he was seen*)

Imperative gerundials:

nʌ́gʌ me?ɸtá?mʌ *go and search for it!* (nʌ́gʌ *go!* + *me?ɸ *search* + -ta?m pl. suf. + -ʌ imp. suf.)
móhʌ wátʌ *begin doing it!* (móhʌ *begin!* +wátʌ *do!*)
kí?mʌ nʌ́gʌ mʌ́ɸʌ *climb up to go and seize it!* (kí?mʌ *climb!* + nʌ́gʌ *go!* + mʌ́ɸʌ *seize!*)

19.10. Conditioned gerundials. The action of the gerundial verb is conditioned by the action of the main verb, which expresses ideas such as "being able," "keeping on," "liking," "knowing," and so forth. The main verb stem takes the regular aspect suffixes but not the pronominal prefixes. The gerundial verb stem takes the transitive pronominal prefixes, whether it is regularly transitive or intransitive, and the zero gerundial suffix. This construction has not been observed in the passive voice.

?ʌč sʌ̀?ba ?aŋwí?k *I am* (continuing) *eating* (?ʌč *I* + *sʌ? *keep on* + -pa inc. suf. + ?an- 1st. per. sub. 3d. per. obj. t. p. pref. + *wi?k *cat* + # ger. suf.)
mìč sʌ̀?ba ?iñhíps *you are burning* (lit. "keep on burning") (mič *you* + sʌ́?ba + ?iñ- 2nd. per. sub. 3d. per. obj. t. p. pref. + *hips *burn* # ger. suf.)
huɸà·p taŋwí?k *how are we going to eat?* (*huɸá· *how* [verb] + -p inc. suf. + tan- 1st. per. sub. 3d. per. obj. lim. incl. pl. t. p. pref. + *wi?k + # ger. suf.)
ďa wʌ?à·p ta?nǐ́ *we cannot live* (ďa neg. + *wʌ?á· *be able* + -p inc. suf. + tan- + *?iǐ *live* + # ger. suf.)
ďa wʌ?à·p ampʌ́k *I can not marry her* (*pʌk *marry*)

19.11. The conditioned gerundial following a stative verb. Only one case has been observed of a gerundial following a stative verb. The main (stative) verb keeps the regular intransitive pronominal prefixes. The gerundial verb is unprefixed, and uses the gerundial suffix -i.

mìč miká?npu makkí?mi *you are an egg taken out with a net* (miká?npu *you are an egg* st. verb, makkí?mi *taken out with a net*)

20. CLAUSE COMBINATIONS

20.1. As has been seen, the complex sentence usually is rather short, consisting of a main clause and a modifying or a subordinate clause. However, a modifying or subordinate clause may in turn be modified by another modifying or subordinate clause, and this in turn modified by another in an indefinite sequence.

20.2. Main clause + gerundial clause + relative clause:

hè?m hayčʌ́·ši nʌ̀kpa ?iné?ɸ hù?ǐ se?ttá·p *the boy went to search where it was being fried* (hè?m hayčʌ́·ši *the boy* + nʌ̀kpa ?iné?ɸ *went to search* + hu?ǐ *where* + se?ttá·p *it was being fried*)

20.3. Main clause + relative clause (modif. noun) + gerundial clause:

?ikupadʌ́?ypa tùm tʌ́k hù?ǐ sʌ̀?ba ?iwì?kkuywát tùm čó·mo *he found a house where an old woman was (kept on) preparing dinner* (?ikupadʌ́?ypa *he found* + tùm tʌ́k *a house* + hu?ǐ + sʌ́?ba *kept on, continued* + ?iwì?kkuywát *making dinner* + tùm čó·mo *an old woman*)

20.4. Relative clause + gerundial clause + main clause:

hèsʌk míñpa ?i?à?myahtá· ?iŋkèhayyáhpa ɸùg iǐúɸ *when she came to look at them they showed her a rat's tail* (hésʌk *when* + míñpa *she came* + ?i?à?myahtá· *to look at them* (pas. const.) + ?iŋkèhayyáhpa *they showed her* + ɸùg iǐúɸ *rat's tail*)

20.5. Main imperative clause + gerundial imperative clause + relative clause + connective clause + connective clause:

nʌ́gʌ me?ɸtá?mʌ hè?m pʌ́·šiñ hù?d íǐ sì?iga nùma hè?am ?ikupuhné? ?anyo·mmánʌk *go and search for the man where he is if it is certain that he (is the one who) has liberated my daughter* (nʌ́gʌ *go* + me?ɸtá?mʌ *search* [imp. pl.] + hè?m pʌ́·šiñ *the man* + hu?ǐ *where* + ?iǐ *he is* + sí?iga *if* + núma *certain* [st. verb] + hé?am *he is the one* + ?ikupuhné? *he has liberated* + ?anyo·mmánʌk *my daughter*)

20.6. Main clause + connective clause + connective clause + relative clause (modif. noun) + gerundial clause + connective clause:

hè?m iyó·mo ɸà?m iǐóypa porke hè? tù?m išwérte ?ipát hè?m lagúna hù?ǐ nʌktʌ́p imàɸ tʌ́?pʌ ?i hèmu?m iku?i·šʌ́?y hè?m yó·mo *he loved his wife very much because she was his good luck (which) he found in the lake where he went meaning to catch fish and there he met the woman* (hè?m iyó·mo *the his wife* + ɸam *much* + ?iǐóypa *he loved her* + porke *because* (Sp. "porque") + hè? tù?m išwérte *she was his good luck* [Sp. "suerte"] [st. verb] + ?ipát *he found* + hè?m lagúna *the lake* [Sp.] + hu?ǐ *where* + nʌktʌ́p *he went*

meaning + ʔimàɸ́ tʌ́ʔpʌ *to catch fish* + ʔi hémum *and there* [ʔi Sp. "y"] + ʔikuʔiˑšʌ́ʔy *he met* + hèʔm yóˑmo *the woman*)

21. THE SYNTACTIC ELEMENTS OF THE CLAUSE

21.1. The predicative word. The predicative word may be an active, passive, or stative verb form. Stative verbs may be verbalized nouns, pronouns, or attributives (7.4).

ʔiñʌʔmáʔypa *he says to him* (*nʌʔmáʔy *say to*)
nʌ̀ʔmayĭáˑp iyóˑmo *it is said to his wife*
hèʔ kóˑya *it is a rabbit* (kóˑya *rabbit*)
ʔaʔʌ́č *it is I* (ʔʌč *I*)
mimʌ́hpʌk *you are big* (mʌh *big*)

21.2. The independent subject. Subject always is expressed by the subjective pronominal element of the verb, and in addition it may also be expressed appositionally by a noun, a series of nouns (which may or may not be joined by the conjunction ʔi *and*), a pronoun, an attributive with the enclitic -pʌk, or a cardinal or pronominal enumerative.

pèʔm čĭˑmpa wókpa *that dog barks* (čĭˑmpa *dog*)
meʔɸ́táˑwom tùm yóya ʔi tùm šíš i tùm čóˑmo *a pig and a bull and an old woman were searched for* (yóya *pig*, šiš *bull*, čóˑmo *old woman*)
ʔʌc amíñ hùʔd́ íť iñhátuʔɳ iñáˑpa *I came from where your father and mother live* (ʔiñhátuɳ *your father*, ʔiñáˑpa *your mother*)
pèʔm séˑtpa *that one returns* (peʔm *that one*)
ʔì ʔiwátpa *who is doing it* (ʔi *who*)
hèsʌgam dàpʌk iɳɸ́óˑɳ nʌmyáhpa *then those who didn't answer say* . . . . (da neg. at. + -pʌk part. enc. > d́ápʌk *those who didn't*)
hèʔm tukutéʔn inikʌʔmáɸ́ *the three shook hands with him* (heʔm def. art., tukutén *three*)
ʔaktʌ́ɳpa ʔikukwʌ́stʌk *the two of them fell* (ʔikukwʌ́stʌk *the two of them*)

21.3. The independent object. Object is always expressed by the objective pronominal element of the verb, but, like the subject, it may also be expressed appositionally by a noun, a series of nouns (which may or may not be joined by the conjunction ʔi *and*), a pronoun, an attributive with the enclitic -pʌk, or a cardinal or pronominal enumerative.

ʔiʔíˑšpa ʔiʔóˑmi *he saw his master* (ʔiʔóˑmi *his master*)
ʔančíʔ tùm máhkuy ʔi tùm pók *I gave him a pitcher and a calabash* (máhkuy *pitcher*, pok *calabash*)
ʔaʔníˑš péʔm *I saw that one* (peʔm *that one*)
mìč impátneʔ wʌ́ˑbʌk *you have found that which is good* (wʌˑ *good* + -pʌk part. enc. > wʌ́ˑbʌk *that which is good*)
ʔiʔíˑš tukutén *he saw three* (tukutén *three*)
mìč antóppa ʔaɳkutúkutam *you will take all three of us out* (ʔaɳkutúkutam *all three of us*)

21.4. The predicate modifier. The predicate modifier may be a word, a modifying clause, a subordinate clause, or a series of modifying and/or subordinate clauses. The modifying word may be a noun inflected with one of the case suffixes, a noun with a locative modifier or used with a locative significance, a temporalized noun, an adverbial enumerative, or an attributive of one of the following types: negative, intensifier, locator, tensor, demonstrative adverb, relative, or interrogative adverb, participial adverb, or quantitative.

ʔòkmʌ póypa hʌmñóm *then he ran into the woods* (hʌmñ- comb. form of hʌ́mñi *woods* + -hom loc. suf.)
kíʔmpa tʌkkòˑbakyúkmʌ *he climbs on the roof* (tʌkkóˑbak *roof* + yúkmʌ *on*)
núk kùkmʌ lámar *he arrived in the middle of the ocean* (kúkmʌ *middle*)
ʔišéˑĭipʌk ʔipátpa *after his return he met him* (ʔišéˑĭipʌk *after his return* temporalized noun modif. ʔipátpa *he met him*)
hèʔ pʌ́ˑšiñ wʌ̀skʌy séˑt *the man turned twice* (wʌ́skʌy *twice*)
ʔòdoy póyʌ *don't run away!* (ʔódoy modal neg.)
ɸ́àm mišíkpa *you will laugh much* (ɸ́am *much*)
pèʔm hón kékpa yúkmʌ *that bird is flying above* (yúkmʌ *above*)
ʔapʌ́ˑšiʔñ íd́ʌk *he was a man* (ʔíd́ʌk tensor)
yʌ̀ʔm aʔíť *I am here* (yʌʔm *here*)
hùʔd́ íť *where is it?* (huʔĭ *where*)
húɸ́pʌy miháya *how valiant you are* (húɸ́pʌy *how much*)
šikímu nʌ́k *laughing he went* (šikímu *laughing*)
ʔimatóɳpa tĭíñpa *he heard it make noise* (tĭíñpa *it makes noise* pred. verb of modif. perceptive clause)
hèʔm hayčʌ́ˑši nʌ̀kpa ʔiméʔɸ́ hùʔĭ seʔttáˑp *the boy went to search for where it was being fried* (ʔimeʔɸ́ *to search for* pred. verb of subord. ger. clause, hùʔĭ seʔttáˑp *where it was being fried* rel. modif. clause)

21.5. The subject or object modifier. The subject or object modifier may be a word or a relative or agentive clause. Modifying words may be of the following types: possessor noun or pronoun modifying a possessed noun, descriptive, locator, tensor (rarely), quantitative, demonstrative adjective, cardinal enumerative.

ʔiɳkèhayyáhpa ɸ́ùg iťúʔɸ́ *they showed her the rat's tail* (ʔiťúʔɸ́ *his tail* obj. noun modif. by ɸ́uk *rat*)
ʔaʔníˑšpa mìč iñčĭˑmpa *I see your dog* (mič *you* modif. iñčĭˑmpa *your dog*)
ʔičàgayneʔom tùm pák ɸ́úˑpapʌk *she had left a sharp bone* (ɸ́úˑpa *sharp* + -pʌk part. enc., modif. pak *bone*)

kí?mpa yúkmʌpʌk kúy *he climbs the high tree* (yúkmʌ *above* locator + -pʌk part. enc. > yúkmʌpʌk *high* modif. kuy *tree*)

wìñʌk pʌ́·ši?ñ íť yʌ́?m *men of long ago lived here* (wíñʌk *long ago* tensor modif. pʌ́·šiñ *man, men*)

núk hà?yaɳ ɸʌ́·štam *many children arrived* (há?yaɳ *many* quant. modif. ɸʌ́·štam *children*)

yʌ̀?p káwa póypa *this horse is running* (yʌ?p *this* dem. adj. modif. káwa *horse*)

?ana?íť wʌsté?n ammánʌk *I have two children* (wʌstén *two* modif. ?ammánʌk *my children*)

?ikupadʌ́?ypa tùm tʌ́k hù?ť sù?ba ?iwì?kkuywát tùm čó·mo *he found a house where an old woman was making her dinner* (hu?ť *where* intro. rel. clause modif. tʌk *house*)

hèmu?m ini?íť hè?m pák ikka?wʌ́?ʌp *there he had the bone which killed him* (?ikka?wʌ́?ʌp *which killed him* ag. clause modif. pak *bone*)

22. USE OF SYNTACTIC ELEMENTS

VERBS

22.1. The verb. The verb is used as the predicative word of a main, modifying or subordinate clause (see examples sections 17, 18, 19). When a pronoun is separated by modifying elements from the verb of which it is the subject, or follows the verb of which it is the subject or object, it often becomes verbalized. Pronoun verbalization also is often used for added emphasis.

ta?ʌ́č ďa ?aɳhʌ́ypa *we don't make noise* (ta?ʌ́č st. verb "we")

mìč a?ni·špʌ́kpa ?a?ʌ́čťam *you know us* (?a?ʌ́čťam st. verb "us")

nʌ̀kpa ?a?ná?m a?ʌ́č *I will go to see* (?a?ʌ́č st. verb "I")

PRONOUNS

22.2. The personal and demonstrative pronouns. Personal and demonstrative pronouns may be used as independent subjects and objects of the predicative verb, as possessor modifiers of a possessed noun, or in apposition to another independent pronoun used as the subject of a verb.

?ʌ̀č ?aɳmátpa *I will speak* (?ʌč *I* sub.)

hè? čí?ʌ *give it to him!* (he? *him* obj.)

tóypa ?ʌ̀č aɳkó·bak *my head hurts* (?ʌč *I* modif. ?aɳkó·bak *my head*)

míčam hè?am miprìmerpʌ́·šiñ *just you are the first man* (lit. "just you, just he, you are the first man") (míčam *just you* pron. in apposition to hé?am *just he*. míčam governs st. verb. miprìmerpʌ́·šiñ *you are the first man*)

?ʌ́č hè?m aɳkò·sputpá?ap *I am he who sprouts at the knees* (?ʌč *I* in apposition to he?m *he*)

22.3. The relative and interrogative pronouns. The relative and interrogative pronouns are used to introduce relative or interrogative clauses.

ťì ?iwátpa hè?m nú?pu *what is the vulture doing?* (ťi *what*)

?aɳmátʌ ?ì ?iññáyi *tell what your name is!* (lit. "tell who is your name!") (?i *who*)

NOUNS

22.4. The noun. A noun in absolute form, or a noun with possessive pronominal prefixes and/or plural suffixes may be used either as the subject or object of a predicative verb. A noun inflected with one of the case suffixes, or a noun used in a locative or temporal sense, functions as a modifier of the predicative verb. A noun also may be used as a form of address in direct discourse.

?i?í·špa ɸòkpa húktʌ mènsayúkmʌ *he saw a fire shine on a mesa* (húktʌ *fire* sub. of verb ɸókpa *it shines*, mènsayúkmʌ *on a mesa* < ménsa *mesa* + yúkmʌ *on* locator)

?ikótpa ?iyó?ťi *she puts on her shirt* (?iyó?ťi *her shirt* obj. of ?ikótpa *she puts it on*)

wìñʌk hè?am ɸʌ́·šťa?m ininʌ́k ičuɳhá·tuɳ *long ago the children went with their stepfather* (ɸʌ́·štam *children* sub. noun, ?ičuɳhá·tuɳ *their stepfather* obj. noun)

ďa yo·šá·p kùyamhóm *he doesn't work in the ashes* (kúyam *ashes* + -hom loc. suf.)

nʌ̀kpa mi?íťi wʌťhámñi *you will go to live in the forest* (wʌťhámñi *forest* with loc. significance modif. verb)

?ipaɸnʌ́kpa kù?yaɳkó·bak *he threw it to the top of the tree* (kù?yaɳkó·bak *top of the tree* modif. verb)

nukyáhpa našyúkmʌ *they came down on the ground* (našyúkmʌ *on the ground* comp. of noun and locator)

hè?m čó·mo ?ikukehháma nʌ́ko?m iɳmàdayťá· *the old woman then went to notify him at sunrise* (lit. "the old woman at her sunrise then went to notify him") (?ikukehháma *her sunrise* modif. verb nʌ́kom *she then went*)

ťì ?iɳwátpa ?á·či *what are you doing, uncle?* (?á·či *uncle*)

ATTRIBUTIVES

22.5. The descriptive attributives. Descriptive attributives may function as noun or verb modifiers. In both syntactic functions they are usually found with the enclitic -pʌk.

?a?ní·š pèkapʌk tʌ́k (also ?a?ní·š pèka tʌ́k) *I saw an old house* (pèka *old* modif. tʌk *house*)

?ókmʌ máyma?yam nʌ́kum kó·ya *then happily the rabbit went* (máymay *happily* modif. verb nʌk *he went*)

22.6. The locator. The locator may modify a noun or a verb.

móɳpa kùkmʌ tʌ́ɳ *he sleeps in the center of the path* (kúkmʌ *in the center* modif. tuɳ *path*)

kékpa yúkmʌ *it flies above* (yúkmʌ *above* modif. kékpa *it flies*)

22.7. The tensor. A tensor functions chiefly as a verb modifier. The only tensor which has been found as a noun modifier is wíñʌk *long ago*, e. g., wìñʌk pʌ́·šiñ *men of long ago*.

sʌ̀?ʌp nʌ̀kpa ?anaŋhó?k éybʌk *now I am going to wait again* (sʌ́?ʌp *now*)
?òkmʌ hè?m pʌ́·šiñ pútpa *then the man came out* (?ókmʌ *then*)

The imperfective tensor ?íd̆ʌk gives special time reference to the verb which it modifies. Thus the action may be imperfect, habitual, or conditional in accordance with the aspect suffix of the modified verb.

When modifying an incompletive verb form the action may be either imperfect incompletive, or conditional.

?ansú·npa ?íd̆ʌk tù?m anyó·mo *I would like a (my) wife* (*su·n *want, like*)
hè?m nʌ́kpa ?íd̆ʌk *he would go* (*nʌk *go*)
hù?d̆ íd̆ʌk mišʌ́?ba *where were you going along?* (*sʌ? *go along*)

When modifying the completive verb or stative verb it indicates past habitual or continued action.

?ʌ̀č a?íd̆ íd̆ʌk *I was living, used to live* (*?iť *live*)
?ìd̆ʌk kó·ñ *he was sitting* (*ko·ñ *sit*)
?ìd̆ʌk iwá?n anyó·mo *my wife used to sing* (*wa·n *sing*)

When modifying verbs with the perfective suffix it indicates conditional or continuative perfective action.

hù?d̆ íd̆ʌk miñʌkné? *where have you been going?* (*nʌk *go* + -ne? perf. suf.)
?ʌ̀č anʌ́knè? íd̆ʌk mé?iga ?ana?iť né? lugár *I would have gone if I had had time*
?ʌ̀č asú·nnè? íd̆ʌk *I would have liked it* (*su·n *like, want*)
?a?iť ñé?o?m íd̆ʌk Chinaméca mè?iga ?anʌ́k matʌ́k *I would have already been in Chinameca if I had gone yesterday* (*?iť *be*)

22.8. The intensifier. The intensifier functions as a verb modifier.

ɸàm wíñʌgam múndo *the world is now very old* (ɸam *very* modif. wíñʌgam *it is now old* st. verb)
?àga ?aŋyáknè? múndo *the world has become very sad* (?ága *very* modif. ?aŋyakné? *it has become sad*)

22.9. The demonstrative adjective. The demonstrative adjective functions as a noun or cardinal enumerative modifier.

tammáɸpa pè?m pʌ́·šiñ *we will catch that man* (pe?m *that* modif. pʌ́·šiñ *man*)
?ananʌ́kpa yʌ̀?p tukutén *I will take these thr·e* (yʌ?p *these* modif. tukutén *three*)

22.10. The article. The article functions in the same way as the demonstrative adjective. Articles are often omitted entirely; they are generally used only when it is desirable to designate a thing more specifically.

?imatóŋpa ?a?ŋá?ypa tʌ́k *he hears the house open* (tʌk [*the*] *house*)
?imatóŋpa ?a?ŋá?ypa hè? tʌ́k *he hears the (particular) house open* (hè? tʌ́k *the house*)
?imatóŋpa ?a?ŋá?ypa tùm tʌ́k *he hears a house open* (tùm tʌ́k *a house*)

22.11. The demonstrative adverb. The demonstrative adverb functions as a verb modifier; with the addition of the particularizing suffix -pʌk it may also be used as a noun modifier.

ťì ?iŋwattá?mpa yʌ́?m *what are you doing here?* (yʌ?m *here* modif. *wat *do*)
?a?ní·š yʌ̀?mpʌk pʌ́·šiñ *I saw men from here* (yʌ?m + enc. -pʌk *from here* modif. pʌ́·šiñ *man*)

22.12. The participial adverb is a verb modifier.

šikímu nʌ́k *laughing he went* (šikímu *laughing* modif. *nʌk *go*)
?ʌ́č poyímu ?asʌ́?ba *I go along running* (poyímu *running* modif. *sʌ? *go along*)

22.13. The interrogative or relative adjective. The interrogative adjective functions as a noun modifier. The relative adjective functions as a noun modifier introducing a relative clause.

hùp ɸʌ́·ši ?iwàhné? *which child has done it?* (hup *which* modif. ɸʌ́·ši *child*)
?ì dúŋ hùp ɸʌ́·ši ?iwahné? *who knows which child did it* (hup *which* intro. rel. clause ɸʌ́·ši ?iwahné? [*the*] *child did it*)

22.14. The interrogative or relative adverb. The interrogative adverb functions as a verb modifier. The relative adverb functions as a verb modifier introducing a relative clause.

nʌ̀kpa ?i?á?m hù?ť kùmnetá· *they went to look where he had been buried* (hu?ť *where* modif. kùmnetá· *he had been buried*)
hù?d̆ íť ?iñť ʌ́k *where is your house* (hu?ť modif. ?iť *it is*)

22.15. The quantitative attributive. The quantitative attributive may serve either as a noun or verb modifier.

hùɸa?ŋ anyóhpa *how much will you pay me?* (húɸaŋ *how much* modif. ?anyóhpa *you pay me*)
?íť hà?yaŋ yó·mtam *there are many women* (há?yaŋ *many* modif. yó·mtam *women*)
núkpa hè?m hèsaŋ háma mòhum hʌ́ki lámar *after several days the ocean began to recede* (hésaŋ *several* modif. háma *day*)

22.16. The negative attributive. The negative attributive ɗa *no, not* is used as a verb modifier in all but modal clauses.

ɗa ʔanʌ́kpa *I am not going* (ʔanʌ́kpa *I am going*)
ɗaʔm anʌ́kpa *I am not going any more* (ɗa + -m lim. enc.)
ɗa ʔaɳwʌ̀ʔaɳháʔm iga miñʌ́k *I don't like it that you went* (*ʔaɳwʌ̀ʔaɳhám *like*)

22.17. The modal negative ʔódoy is used as a verb modifier in imperative phrases and subjunctive subordinate clauses. It has not been observed with verbs inflected with the subjunctive suffix, but in itself gives a subjunctive meaning to the phrase, thereby eliminating the necessity for the subjunctive suffix.

ʔòdoy nʌ́gʌ *don't go!* (nʌ́gʌ *go!*)
ʔòdom nʌ́gʌ *don't go any more!* (ʔódoy + -m lim. enc.)
ɗa nʌ̀kpa ʔiyáʔg iga ʔòdoʔy ikkáʔ *he didn't go himself that they might not kill him* (ʔódoy modif. ʔikkáʔ *he [they] killed him* > *they might not kill him*)
ɸè·nayt̆á· hèʔm ič́í·mpa ʔiga ʔòdoy nʌ̀g ikupúh *his dogs were tied that they might not go to free him* (ʔòdoy modif. *nʌk *go* > *they might not go*)

22.18. The conjunction. A conjunction may function only to introduce a modifying clause (for examples see 18.6), except for the conjunction ʔi (Sp. "y") which may also be used to join a series of noun subjects or noun objects (for examples see 21.2–3).

22.19. The interjection. Interjections may be used as phrase words in answer to a question, or as exclamatory elements in a phrase.

miñʌ́kpa hóymʌ (pause) hʌ́ *are you going? yes* (hʌ *yes*)
ʔáy ʔá·či kít̆uʔm anɸókwiñ *oh, uncle, my chest is broken* (ʔay exclamatory interjection)

22.20. The cardinal enumerative. A cardinal enumerative may function as subject or object of a verb, or as a noun modifier.

hèʔm tukutén ɗa ʔičíʔ ikʌ́ʔ *the three did not give their hands* (hèʔm tukutén *the three* sub. of ʔičíʔ *they gave them*)
ʔimmé·ʔɸpa wʌstèn karpintéro *you will search for two woodpeckers* (wʌstén *two* modif. karpintéro *woodpecker* [Sp.])

22.21. The pronominal enumerative. The pronominal enumerative may be used as subject or object of a verb, or in apposition to a nominal subject or object.

tʌgʌyt̆áʔmʌ ʔiñt̆úmpʌy *get in, all of you!* (ʔiñt̆úmpʌy *all of you* sub. of imper. verb)
ʔiʔi·šyáh it̆úmpʌy hèʔm náwahyah *all the witches saw it* (ʔit̆úmpʌy *all of them* sub. in apposition to náwahyah *witches*)

22.22. The adverbial enumerative. The adverbial enumerative functions as a verb modifier.

wʌ̀skʌy ʔiñáks *he hit it twice* (wʌ́skʌy *twice* modif. ʔiñáks *he hit*)

22.23. Polite phrases. The only difference noted between the speech of men and women is in the form of greeting used. That for men is šuɸóʔy while that for women is t̆úšam šúčiñ. Although there is no apparent direct translation for these forms, the nature of some of the morphemes may be pointed out. The stem *šuɸ is common to both. In the masculine form it is followed by the repetitive suffix -ʔóʔy. In the feminine form it is preceded by t̆úšam (probably t̆uš *God* [Sp. "dios"] plus the enclitic -am) and followed by the subjunctive suffix -ʔiñ. "Thank you" is expressed by yùkwʌ́ʔʌbam ɗúš (probably a verb stem *yuk with the agentive suffix -wʌ́ʔʌp, the enclitic -am, and a variant of Spanish "dios").

23. WORD ORDER

23.1. Word order is not rigid in Popoluca, but there are a few definite rules which are always adhered to in the combining of syntactic elements into sentences, and other tendencies which are usually followed.

23.2. A conjunction used to introduce a clause must always precede all the other elements of the clause (see examples 18.6).

23.3. Relative and interrogative adverbs generally precede all other elements of the clause (see examples 18.7) but may occasionally be preceded by another element such as a demonstrative adverb or even the verb subject.

hèmʌk hùɸmʌ nʌ́k ʔipátpa úšpiñ *there, where he went, he encountered an alligator* (hémʌk *there*, húɸmʌ *where*)
yʌ̀ʔp pʌ́·šiñ hùʔt̆ nʌ́kpa *this man, where is he going?* (huʔt̆ *where* inter. preceded by yʌ̀ʔp pʌ́·šiñ *this man*)

23.4. Negatives and intensifiers always directly precede the verb which they modify, with the exception of the intensifier ʔéybʌk *again* which also has been noted following the modified verb with a preceding tensor.

ʔʌ̀č ɗa ʔanʌ́kpa *I do not go* (ɗa neg. at.)
ʔòdoy nʌ́gʌ *don't go!* (ʔódoy neg. at.)
ɗa wʌ́·bʌk hèʔm yó·mo *the woman is not pretty* (ɗa modif. st. verb wʌ́·bʌk *is pretty*)
ʔʌ̀č àga ʔanhoʔyáʔy *I was very angry with them* (ʔága *very* modif. ʔanhoʔyáʔy *I was angry*)
sʌ̀ʔʌb anapútʌ ʔéybʌk *now take me out again!* (ʔéybʌk *again* modif. ʔanapútʌ *take me out!*)

23.5. A pronoun as the object of an imperative verb precedes the verb.

hè?am nʌ?má?yʌ *tell it to him* (he? *him* + -?am enc., obj. of ind. imp. verb)

23.6. Other words which also generally precede the predicative verb are noun subjects when there is also a noun or pronoun object, temporalized nouns, pronouns used as subjects, tensors, demonstrative adverbs, and quantitative attributives.

hè?m pʌ́·ši?ñ ĭtóppa ?i?á·ñi *the man takes out his tortilla* (hè?m pʌ́·šiñ *the man* sub., ?i?á·ñi *his tortilla* obj.)

?imíñipʌk apútpa *after his coming I go out* (?imíñipʌk temporalized noun modif. ?apútpa *I go out*)

?ʌ̀č yʌ̀?m a?íĭ̀ *I am here* (?ʌč *I* pron. used as sub., yʌ?m *here* dem. adverb)

?òkmʌ hʌypátpa *then he speaks* (?ókmʌ *then* tensor)

húɸpʌy miháya *how valiant are you?* (lit. "how much are you valiant?") (húɸpʌy *how much* quant. at.)

23.7. Words that generally follow the predicative verb are nouns used as subjects (when no object is expressed), nouns used as objects, nouns inflected with one of the case suffixes, nouns used in a locative sense, pronouns used as objects, locators, and phrasal modifiers of a noun and a locator.

ɸʌ?yñé? iyó·mo *his wife remained* (?iyó·mo *his wife* noun sub.)

mìč iŋkú?tpa yʌ̀?p á·ñi *you will eat this tortilla* (?á·ñi *tortilla* noun obj.)

tanʌ́kpa hʌmñóm *we will go into the woods* (hʌmñóm *into the woods* noun inflected with case suf. -hom)

núkpa hè?m kuyyúkmʌ *he arrives up in the tree* (kuyyúkmʌ *up in the tree* noun with loc. sense)

?iñčí?ba pé?m *you will give it to that one* (pe?m *that one* pron. obj.)

hèmʌga?m íĭ̀ yúkmʌ *there it was (up) above* (yúkmʌ *above* locator)

?ičák mʌ̀hmʌ túŋ *he left it in the middle of the path* (mʌ̀hmʌ túŋ *in the middle of the path* loc. phrasal modifier)

23.8. The tensor ?íd̆ʌk must directly precede or directly follow the verb which it modifies.

?a?íd̆ íd̆ʌk *I was living*, or ?ìd̆ʌk a?íĭ̀ *I was living*

23.9. A possessor noun or pronoun usually directly precedes the possessed noun which it modifies, though it may directly follow it if the possessed noun is the subject and the possessor the object of the verb (an article or demonstrative adjective may intervene in either case).

d̆a ?iŋkʌ́ypa ?ʌ̀č aŋwáŋ *you will not bear my horns* (?ʌč *I* possessor pron. modif. ?aŋwáŋ *my horns*)

?i?ómi hè?m asiyénda ?ikupo?yá?y *the owner of the hacienda left it for him* (?i?ómi *its owner* possessed noun sub. of verb, hè?m asiyénda *the hacienda* possessor noun direct obj. of verb with "for him" expressed by indir. suf. -?a?y)

23.10. Articles, demonstrative adjectives, quantitative attributives, and cardinal enumeratives must directly precede the noun or enumerative which they modify. If either an enumerative, a quantitative, or the demonstrative adjective túŋgak/túŋgam plus an article modify the same noun, the article precedes the enumerative, quantitative, or demonstrative.

só?psum hè?m ibúrro *his burro then tired* (he?m *the* art. + enc. -m modif. ibúrro *his burro*)

hè?m tukutén inikʌ?máɸ *the three shook hands with him* (he?m modif. tukutén *three*)

yʌ̀?p yó·mo hù?t míñ *this woman, from where did she come?* (yʌ?p *this* dem. adj. modif. yó·mo *woman*)

nʌ́k wastèn négro *two negroes went* (wastén *two* cardinal enumerative modif. négro *negroes*)

míñpa hè?m wasté?n ičí·mpa *his two dogs come out* (lit. "they come the two his dogs") (he?m *the*, wastén *two*, ?ičí·mpa *his dogs*)

hèmu?m akɸaktá· hè?m tùŋgak ɸó·ka *there he was left (unharmed) by the other thunderbolt* (he?m *the* def. art., túŋgak *other* dem. adj., ɸó·ka *thunderbolt*)

núkpa hè?m hèsaŋ háma *after several days* (lit. "the several days arrive") (he?m *the*, hésaŋ *several* quant. modif. háma *day*)

23.11. Since the main verb and the gerundial verb in a gerundial clause construction have the same subject and, in the case of transitives, the same object, the two verbs are treated as one with regard to other syntactic elements in the clauses. The other syntactic elements precede and follow the two verbs with nothing interposed between them.

sʌ̀?ba ?ičíŋ hè?m yó·mo *the woman was (kept on) bathing* (sʌ̀?ba ?ičíŋ *she was bathing* main verb + ger. verb construction, hè?m yó·mo *the woman* sub. of both verbs)

wìñʌk hè?m pʌ́·šiñ nʌ̀g ikmè?ɸyahtá· tʌkčí·ñu *a long time ago the men were sent to search for bee hives* (nʌ̀g ikmè?ɸyahtá· lit. "they went to be caused to search for," main verb + ger. verb, hè?m pʌ́·šiñ *the men* sub., tʌkčí·ñu *beehive* obj.)

23.12. Descriptive attributives modifying a noun may either directly precede or directly follow the noun.

čihó?ypa pʌ̀mbʌk túh *it rains hard*, or čihó?ypa túh pʌ́mbʌk *it rains hard*

23.13. A locator modifying a noun will precede the noun if it is not compounded with it (10.20).

nʌ̀kpa ʔikɸʌ́ʔy kùkmʌ lámar *he goes to catch up with her in the middle of the ocean* (kúkmʌ *in the middle* locator modif. lámar *ocean* [Sp.])

23.14. If both an independent subject and object follow the verb, the former usually will precede the latter.

ʔimatóŋpa nanʌ̀gayt̆á·woʔm iwʌd̆áya hèʔm ɸó·ka *she hears that her husband was then carried off by the thunderbolt* (ʔiwʌd̆áya *her husband* sub. of nanʌ̀gayt̆á·wom *was then carried off*, hèʔm ɸó·ka *the thunderbolt* indirect obj.)

FOREIGN INFLUENCE

Popoluca has been recognizably influenced both by Spanish and Aztec. We are unable to determine the extent of the influence of the latter, since we know very little about the Aztec language. A number of common Aztec nouns have been noted, however, and the number is undoubtedly much greater. Many of these, though by no means all, are of a botanical nature, e. g., túlin *tule*, húñikuy *hule* (hule Aztec "rubber" + kuy Popoluca "tree"), kákwa *cacao*, nánčin *nanche* (a kind of fruit), náwat *nagual* ("witch"). (The modern Hispanicized rather than the classical Nahautl forms of these nouns are given.)

Spanish borrowing is on two levels: words fully adopted into Popoluca with appropriate sound and stress shifts to conform to Popoluca phonology, and which would not be recognized as foreign in origin if the derivation were not known; words which are sprinkled at random into everyday speech, but which would be suspected of foreign origin because of non-Popoluca phonology, even if the derivation were unknown.

On the first level of borrowing are included many words which have no Popoluca equivalent, e. g., káwa *caballo*, šápun *jabón*, šíwan *Juan*. Some of the sound shifts which have occurred presumably reflect old speech sounds of the Spanish conquerors and their followers, e. g., j > š in the above examples.

Spanish o almost always is given the value of u. Probably this is because Popoluca o is more open and less rounded than Spanish o, so that the latter would seem to the native ear more closely to resemble the Popoluca u. Thus, trúhah *troje* ("storehouse"), lúpuhti *lobo* ("wolf"), kusínah *cosina* ("kitchen"), kun *con* ("with").

The sound f is unknown in Popoluca; in Spanish loan words p is substituted, e. g., kapél *cafe* ("coffee").

Though rarely found in Popoluca words, l and r are always retained in borrowed words, e. g., lámar *la mar* ("ocean"), and trúhah, mentioned above.

Borrowed Spanish words which end in a vowel often are given a final h, in contrast to the inorganic glottal often found at the end of Popoluca words which terminate in a short vowel, e. g., pá·šah *faja* ("belt"), mačítih *machete* ("brush knife"). A variant of this is found in loan words to which a suffix -ti is added after the h, e. g., lúpuhti *lobo* ("wolf"), kúkuhti *coco* ("coconut").

Numerals above 6 (except móñi *four hundred*) are Spanish; no sound or stress shifts occur.

Only a very few cases of Spanish expressions translated into Popoluca have been noted, e. g., nʌ̀ʔí·škuy *ojo de agua* ("spring") nʌʔ *water* + ʔí·škuy *eye*. Borrowed Spanish nouns are freely inflected, e. g., ʔiswérte *su suerte* ("his luck") < ʔi- pos. p. pref. + *suerte*, pàylahóm *en la paila* ("in the kettle") < *paila* + -hom loc. suf.

Spanish verbs are borrowed only rarely. Those most commonly used are *ser* and *tener*, the former in the present and imperfect, e. g., ʔéra hèʔaŋ káʔnpu *it was just an egg*, and the latter always in the third person form of tiene que *he has to*, regardless of person, e. g., t̆éne kè ʔampʌ́kpa *I must marry him*.

Compound verbs sometimes are constructed from a Spanish attributive plus a Popoluca verb stem, e. g., *kùšuhwát *make lame* < kúšuh *cojo* ("lame") + *wat *make*. Enclitics may be freely attached to borrowed words, e. g., ʔasíʔam *just thus* < *así* ("thus") + ʔam lim. enc.

Some Spanish words, chiefly prepositions and conjunctions, have been adopted so freely that they appear to be supplanting their Popoluca equivalents. In some cases we encountered no Popoluca equivalent at all, e. g., ʔi *y* ("and"). Other Spanish phrase connectives are often used, sometimes alone and sometimes combined with the corresponding Popoluca form, e. g., porké *porque* ("because"), poréso *por eso* ("therefore,"

"for this reason"), porkeĭí?iga < *porque*+ĭí?iga ("because"), sí?iga < *si*+?íga *that* (expression translated by "if"; in Popoluca "if" is mé?iga). Spanish prepositions which are replacing Popoluca forms are *para* and *con*, used with the appropriate thematic affixes of the verb which in Popoluca express these concepts, e. g., pàra mimíč *for you* (mimíč 2d. per. pron. mič prefixed as stative verb), ku?n iyó·mo *with his wife* (?iyó·mo *his wife*). The Spanish agentive suffix *-ero*, in the form *-tero*, is often attached to Popoluca verb or noun stems to form an agentive noun, e. g., ?eɕtéro *dancer* (*eɕ *dance*, yò·ša·téro *worker* (*yo·šá· *work*), tʌktéro *house builder* (tʌk *house*).

SPECIMEN TEXT AND ANALYSIS

STORY OF A WITCH

wìñʌk (1) Once upon a time
hè?m (2) the
pʌ́·šiñ (3) men
puhyàhpa (4) went out
?iga (5) as
náwat (6) witches.
nʌkyàhpa (7) They went
hó·yi (8) taking a walk
hú?mʌ (9) far away,
?i (10) and
hè?m (2) the
iwʌĭyó·mo (11) his wife
ĭda (12) not
?ihó?doŋ (13) she knew
ĭî (14) what
?imé?ɕpa (15) he was seeking
?iwʌĭáya (16) her husband.
?iñà?má?ypa (17) She said to him
mìč (18) "You,
hù?ĭ (19) where
misʌ́?ba (20) do you go?"
ĭda (12) Not
?iŋmátpa (21) he spoke to her
hè?m (2) the
náwat (6) witch.
hè?ĭi?m (22) She herself
i?í·špa (23) saw him
?iwʌĭyó·mo (11) his wife.
?ikusúɕpa (24) She spied on him.
ɕù?a·né?om (25) She had already stayed up at night
siéte (26) seven
nóče (27) nights
?i (10) and
?òkmʌ (28) then
?i?í·špa (23) she saw it
?ihákpa (29) he cut it off,
?ikó·so (30) his knee.
?i (10) And
nʌ́mpa (31) she said
?iyó·mo (32) his wife,
sà?ʌba?m (33) "Right now
ihò?do?ŋá·p (34) he will know
ĭî (14) what
?anawadá?ypa (35) I will do with it."
?i (10) And
?òkmʌ (28) then
mòh (36) she began
ihʌ́·s (37) to think.
nʌ́mpa (31) She said
wà· (38) "It is good
ñíwi (39) chile."
?i (10) And
mòh (36) she began
imoɕá?y (40) to grind it.
?i?í·šum (41) She then saw
hù?ĭ (42) where
ičág (43) he left
ipúy (44) his leg
hè?m (2) the
náwat (6) witch.
nʌ́mpa (31) She said
yó·mo (45) woman
?aŋkòdayá?ypa (46) "I will insert in it for him
ñíwi (39) chile."
?iganam (47) while
nʌkné? (48) he has gone
hú?mʌ (9) far away.
hèsʌk (49) When
sé·t (50) he returned
kukèhakʌ́?m (51) n the morning
?i (10) and
mòh (36) began
ikká?m (52) to put on
ikó·so (30) his knee,
ĭam (53) no longer
namaɕtá·p (54) it is seized with it.
?i (10) And
?òkmʌ (28) then
?iñʌ?má?ypa (17) he said to her
?iwʌĭyó·mo (11) his wife
yú·sʌ (55) "Wake up.
?ʌ́č (56) I,
?i (57) who
dùŋ (58) knows
ĭî (14) what
?annà·ska?né? (59) has happened to me."
?i (10) And
ĭda (12) not
hʌ́ypa (60) she speaks
?iwʌĭyó·mo (11) his wife.
?i (10) And
?òkmʌ (28) then
mòh (36) he began
aŋwéhi (61) to shout.
nʌ́mpa (31) He said,
sà?ʌp (62) "Now
?ʌč (56) I,
hu?ɕà·p (63) how will I do
anakká?m (64) to put on
ampúy (65) my leg?"
porkè (66) Because
hè? (67) they
puhyáhpa (4) they go out
ɕu?kʌ́?m (68) at night.
?aŋhʌ̀ypa (69) They make noise
?iwihyáh (70) walking.
?imatoŋyáhpa (71) They hear it
?aŋhʌ̀ypa (69) make noise
?iñʌ́k (72) (as) he goes,
hè?am (73) just the
triŋló?kʌɕ (74) triŋló?kʌɕ
porkè (66) because
?aŋhʌ́ypa (75) it makes noise
?ipúy (44) his leg
?iga (76) that
?iĭupsné? (77) he has removed.
?i (10) And
he?yúkmʌ (78) because of this
?ičʌkhó?ypa (79) it angers her
?iwʌĭyó·mo (11) his wife
porkè (66) because
?ikú?tpa (80) he eats
tantʌ́·wʌ (81) our brothers.
nʌ́mpa (31) She spoke
?iyó·mo (32) his wife
sà?ʌba?m (33) "Right now
ihò?do?ŋá·p (34) he will know

sì (82) if
ǎda (12) not
?aŋkùšuhwátpa (83) I will make him one-legged."
?i (10) And
?òkmʌ (28) then
mòh (36) he began
aŋwéhi (61) to shout.
nʌ́mpa (31) She said
?iyó·mo (32) his wife,
?iŋwʌ́· (84) "Your goodness
?iniŋnúk (85) you paid for."
?i (10) And
?ókmʌ (28) then
kukèhʌ?yyáh (86) they had morning.
?i (10) And
tùŋgam (87) the next
há·ma (88) day
?ihò?do?ŋá·p (34) he knows
?aŋhagó?yi (89) the head man.
nʌ̀?mayt̆á·p (90) It is said to him,
pè?m (91) "That
pʌ́·šiñ (3) man
?iku?dá?ypa (92) he eats
tantʌ́·wʌ (81) our brothers
?ičókoy (93) their spirits."
?i (10) And
nʌ́mpa (31) he said
?aŋhagó?yi (89) the head man
sʌ́?ʌbam (33) "Right now
tanakká?ba (94) we will kill him,
porkè (66) because
?ičàŋwatné?om (95) he has already done much
?iga (76) that
?ikú?tpa (80) he eats
pʌ́·šiñ (3) men."
?i (10) And
?òkmʌ (28) then
no?kehtá· (96) he was set afire
hè?m (2) the
náwat (6) witch.
nʌ́mpa (31) He said
?aŋhagó?yi (89) head man,
sì?iga (97) "If
núma (98) it is certain
náwat (6) he is witch
ǎda (12) not
hípspa (99) he will burn."
?i (10) And
?òkmʌ (28) then
no?kehtá· (96) he was set afire,
?i (10) and
ǎda (12) not
hòbit̆ (100) right away
ká? (101) he died
huktóm (102) in fire.
hèmu?m (103) Just there
i·št̆á· (104) it was seen
?iga (76) that
hàya?yaŋhʌ́čʌč (105) he is brave
hè?am (73) the one who is
náwat (6) witch,
porkè (66) because
ǎda (12) not
hòbit̆ (100) right away
ká? (101) he died
huktóm (102) in fire.
hèmu?m (103) Just there
i?i·šyáh (106) they saw
it̆úmpʌy (107) all of them
hè?m (2) the
náwahyah (108) witches.
?i (10) And
?òkmʌ (28) then
ku·ŋyáhom (109) they were truly afraid
porkè (66) because
nò?yahtá·p (110) they will be burned.
hèmum (103) Just there
kuyáh (111) finished
hè?m (2) the
kwénto (112) story.

FREE TRANSLATION

Once upon a time men went out as witches. They went traveling far away. One man's wife did not know what her husband was seeking. She said to him, "Where do you go?" The witch did not answer her. His wife saw him go, because she spied on him. After she had kept watch for 7 nights she saw that he cut off his leg at the knee. His wife said, "Right now he is going to find out what I will do with it." She then began to think. She said, "Chile is good," and she began to grind it. Then she saw where the witch had left his leg. The woman said, "I will insert chile (at the joint) for him while he is far away." When he returned in the morning and began to put his leg on at the knee it would no longer fasten on. Then he said to his wife, "Wake up! Who knows what has happened to me?" His wife would not speak. Then he began to shout. He said, "Now, how am I going to put on my leg?" Because when witches go out at night they make a noise as they walk. The people hear a noise and it is the triŋló?kʌɬ who is going by. Because of the removal of his leg he makes a noise when he walks. It is because he eats our brothers that his wife is angered. His wife said, "Now he will find out if I have made him one-legged." Then he began to shout. His wife said "You have paid for your pleasure." Then they awaited the morning.

The next day the head man found out about it. He was told, "That man eats the spirits of our brothers." The head man said "We must kill him immediately because by eating men he has already done much harm." The witch was then set afire. The head man said, "If he is surely a witch he will not burn." When he was set afire he did not die in the fire immediately. Thus it was seen that he was a brave witch. All the witches saw him there, and they were afraid that they too would be burned. There the story ends.

GRAMMATICAL ANALYSIS

1. tensor, suf. -ʌk (13.4)
2. def. art. + -m lim. enc. (15.2)
3. *man*
4. *put *go out* (t > h 4.8) + -yah 3d. per. pl. suf. (8.4) + -pa inc. suf. (8.9)
5. conj. *that, as,* here intro. a modif. clause with st. verb (18.6)
6. *witch*
7. *nʌk *go* + -yah 3d. per. pl. suf. (8.4) + -pa inc. suf. (8.9) main verb of i. res. ger. construction (19.8).
8. i. res. ger. (19.8) *ho·y *take a walk* + ger. suf. -i (8.2)
9. locator (13.3)
10. Sp. "y" conj.
11. ?i- 3d. per. pos. p. pref. (11.1) + wʌt̆- comb. form of wʌ́t̆i *large* + yó·mo *woman, wife;* comp. noun (10.22)
12. neg. at. (13.9)

13. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *hó?doŋ *know*, + # compl. suf. (8.9)
14. rel. pron. (9.4) intro. rel. clause (18.7)
15. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *me?ɸ *seek* + -pa inc. suf. (8.9)
16. ?i- 3d. per. pos. p. pref. (11.1) + wʌǎ- comb. form of wʌ́ǎi *large, great* + haya *male;* comp. noun (10.22)
17. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *nʌm *say* + -?a?y indir. suf. (6.17) + -pa inc. suf. (8.9)
18. 2d. per. ind. pers. pron. (9.2)
19. inter. at. (13.7)
20. mi- 2d. per. i. p. pref. (7.2) + *sʌ? *go about* + -pa inc. suf. (8.9)
21. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *?aŋmat *speak* (ben. pref. ?aŋ- 6.5) + -pa inc. suf. (8.9)
22. 3d. per. ind. pers. pron. (9.2) + lim. encl. -ǎim (15.4)
23. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *?i·ś *see* + -pa inc. suf. (8.9)
24. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + ku- purp. pref. (6.4) + suɸ bound stem of *kusúɸ *spy* + -pa inc. suf. (8.9)
25. ɸu? night + -?a· verb suf. (6.11) + -ne? perf. suf. (8.3) + -om tem. enc. (15.2)
26. Sp. "siete"
27. Sp. "noche"
28. tensor (13.4)
29. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *hak *cut* + -pa inc. suf. (8.9)
30. ?i- 3d. per. pos. p. pref. (11.1) + kó·so *knee*
31. # 3d. per. i. p. pref. (7.2) + *nʌm *say* + -pa inc. suf. (8.9)
32. ?i- 3d. per. pos. p. pref. (11.1) + yó·mo *woman*
33. sʌ́?ʌp tensor (13.4) *now* + -?am enc. (15.2)
34. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *hò?do?ŋá· *know* + -p inc. suf. (8.9)
35. ?an- 1st. per. sub. 3d. per. obj. t. p. pref. (7.5) + na- com. pref. (6.7) + *wat *do* + -?a?y indir. suf. (6.17) + -pa. inc. suf. (8.9)
36. *begin*, compl. asp. (8.9) main verb of ger. clause construction
37. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *hʌ·s *think* + # ger. suf. (8.2), i. res. ger. (19.8)
38. *good*, st. verb (7.4)
39. *chile*
40. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *moɸ *grind* + -?a?y ind. suf. (6.17) + # ger. suf., t. res. ger. (19.9)
41. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *?i·š *see* + # compl. suf. (8.9) + -um tem. encl. (15.2)
42. hu?ǎ *where*, rel. at. introducing rel. clause (18.7)
43. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *ɸak *leave* + # compl. suf. (8.9)
44. ?i- 3d. per. pos. p. pref. (11.1) + puy *leg*
45. *woman*
46. ?an- 1st. per. sub. 3d. per. obj. t. p. pref. (7.5) + *kot *insert* + -?aya?y redup. ind. suf. (6.17) + -pa inc. suf. (8.9)
47. ?iga conj. *that* + -nam tem. encl. (15.3)
48. # i. p. pref. (7.2) + *nʌk *go* + -ne? perf. suf. (8.3)
49. conjunction (13.10)
50. # i. p. pref. (7.2) + *se·t *return* + # compl. suf. (8.9)
51. ku- purp. pref. (6.4) + *keh *appear* + -a nom. suf. (10.12) + -kʌ?m loc.-dur. suf. (12.4)
52. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + ?ak- caus. pref. (6.6) + -ka?m bound stem of *?akka?m *put on* + # ger. suf., t. ger. verb (19.9)
53. ǎa neg. at. + -m lim. enc. (15.2)
54. # i. p. pref. (7.2) + na- com. pref. (6.7) + *maɸ *seize* + -ta· pas. suf. (8.6) + -p inc. suf. (8.9)
55. *yu·s *wake up* + -ʌ imp. suf. (8.8)
56. 1st. per. ind. pers. pron. (9.2)
57. ?i inter. pron. *who* (9.4)
58. irregular verb theme used only after ?i *who*. In other constructions the theme is *ho?, *hó?doŋ, or hò?do?ŋá· *know*.
59. ?an- 1st. per. sub. 3d. per. obj. t. p. pref. (7.5) + *na·s *pass* + -ka? inst. compounding theme (6.29) + -ne? perf. suf. (8.3)
60. # i . p. pref. (7.2) + *hʌy *speak* + -pa inc. suf. (8.9)
61. # i. p. pref. (7.2) + ?aŋ- sim. pref. (6.5) + *weh *cry* + -i ger. suf. (8.2), i. res. ger. verb (19.8)
62. tensor (13.4)
63. hu?ɸ rel. at. *how* + -?a· verb. suf. (6.11) + -p inc. suf. (8.9) main verb of cond. ger. construction (19.10)
64. ?an- 1st. per. sub. 3d. per. obj. t. p. pref. (7.5) + ?ak- caus. pref. (6.6) + -ka?m bound stem of *?akká?m *put on*, + # ger. suf. (8.2), cond. ger. verb. (19.10)
65. ?an- 1st. per. pos. p. pref. (11.1) + puy *leg*
66. Sp. "porque"
67. 3d. per. ind. pers. pron. (9.2)
68. ɸu? *night* + kʌ?m loc.-dur. suf. (12.4)
69. ?aŋ- sim. pref. (6.5) + *hʌy *speak* + -pa inc. suf. (8.9), main verb of cond. ger. construction (19.10)
70. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *wiǎ *walk* + -yah 3d. per. pl. suf. (8.4) + # ger. suf. (8.2), cond. ger. verb. (19.10)
71. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *matóŋ *hear* + -yah 3d. per. pl. suf. (8.4) + -pa inc. suf. (8.9)
72. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *nʌk *go* + # ger. suf. (8.2), cond. ger. verb. (19.10)
73. he? def. art. + -?am lim. encl. (15.2)
74. Name of a variety of witch who removes leg. Since word does not follow usual Popoluca construction foreign origin is suggested.
75. # i. p. prep. (7.2) + *?aŋhʌ́y *make noise* + -pa inc. suf. (8.9)
76. conj. *that*
77. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *tups *remove* + -ne? perf. suf. (8.3)
78. he? 3d. per. ind. pers. pron. (9.2) + yúkmʌ locator *on*
79. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *ɸʌk *touch* + *ho?y *anger* + -pa inc. suf. (8.9); comp. verb (6.24)
80. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *ku?t *eat* + -pa inc. suf. (8.9)
81. tan- 1st. per. pl. pos. p. pref. (11.1) + tʌ́·wʌ *sibling*
82. Sp. "si"

83. ?an- 1st. per. sub. 3d. per. obj. t. p. pref. (7.5) + kúšuh *one-legged* (Sp. "cojo") + *wat *make* + -pa inc. suf. (8.9); comp. verb (6.34)
84. ?iñ- 2d. per. pos. p. pref. (11.1) + wʌ· *good* at. used as noun
85. ?iñ- 2d. per. sub. 3d. per. obj. t. p. pref. (7.5) + ?aŋ- ben. pref. (6.5) + *nuk *arrive*, + # compl. suf. (8.9)
86. # i. p. pref. (7.2) + kukéh- comb. form of kukéha *morning* + -?ʌ?y verb. suf. (6.12) + -yah 3d. per. pl. suf. (8.4) + # compl. suf. (8.9)
87. túŋgam *another* dem. at. (13.6)
88. *day*
89. Translated in Spanish as "la autoridad," "the authority," perhaps derived thus: ?aŋ- ben.-sim. pref. (6.5) + *hak *cross* i. verb stem, or *hak *break* t. verb stem + -?o?y repet. suf. (6.14) + -i nom. suf. (10.9)
90. # i. p. pref. (7.2) + *nʌm say + -?a?y ind. suf. (6.17) + -ta· pas. suf. (8.6) + -p inc. suf. (8.9)
91. dem. at.
92. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *ku?t *eat* + -?a?y ind. suf. (6.17) + -pa inc. suf. (8.9)
93. ?i- 3d. per. pos. p. pref. (11.1) + ɸókoy *liver* (the liver is the seat of the spirit)
94. tan- 1st. per. incl. pl. t. p. pref. (7.5) + ?ak- caus. pref. (6.6) + *ka? *die* + -pa inc. suf. (8.9); lim. incl. pl. (8.4)
95. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + ɸam *much* + *wat *do* + -ne? perf. suf. (8.3) + -om tem. enc. (15.2); comp. verb (6.34)
96. # i. p. pref. (7.2) + *no? *burn* + *keh *appear* + -ta· pas. suf. (8.6); comp. verb *set afire*, (6.25)
97. Sp. "si" + ?iga conj. *that* > *if*
98. *certain*, intensifier
99. # i. p. pref. (7.2) + *hips *burn* + -pa inc. suf. (8.9)
100. *right away*, tensor
101. # i. p. pref. (7.2) + *ka? *die*, + # compl. suf. (8.9)
102. hukt- comb. form of húktʌ *fire* + -hom loc. suf. (12.5)
103. hem dem. adv. *there* + -um lim. encl. (15.2)
104. # i. p. pref. (7.2) + *?i·š *see* + -ta· pas. suf. (8.6)
105. st. verb. (7.4), much used idiom which has resisted complete analysis; haya *manly*
106. ?i- 3d. per. sub. and obj. t. p. pref. (7.5) + *?i·š *see* + -yah 3d. per. pl. suf. (8.4) + # compl. suf. (8.9)
107. ?i- 3d. per. pos. p. pref. (11.1) + tum indef. art. and cardinal enumerative *one* + -pʌy quant. suf. (13.8); pron. enumeration (14.4)
108. náwat *witch* + -yah 3d. per. pl. suf. (12.2)
109. # i. p. pref. (7.2) + *kuŋ *fear* + -yah 3d. per. pl. suf. (8.4) + -om lim. encl. (15.2)
110. # i. p. pref. (7.2) + *no? *burn* + -yah 3d. per. pl. suf. (8.4) + -ta· pas. suf. (8.6) + -p inc. suf. (8.9)
111. # i. p. pref. (7.2) + ku- purp. pref. (6.4) + *yah *finish* + # compl. suf. (8.9)
112. Sp. "cuento"

VOCABULARY

The vocabulary here given consists, with a few exceptions, of simple stem themes of verbs and substantives. The exceptions are chiefly a few reduplicated stems, such as pópo *white*, and bound stems with affixes, such as aŋmát *speak*. The other two word classes, pronouns and enumeratives, are omitted entirely, since all words of these classes are listed in the discussion in morphology (sections 9 and 14). When the translation of a word might lead to confusion, the original Spanish (in some cases, actually Aztec) is included in parenthesis.

Verbs	
answer	*ɸoŋ
arise	*ɸukúm
arrive	*nuk
ascend, climb	*ki?m
ask	*wa?k
awaken	*yu·s
bark	*wok
bathe	*čiŋ
be, live, exist	*?iť
be able	*wʌ?á·
be born	*nay
bear, endure	*?aŋkʌ́y
beat (Sp. "as a drum")	*tʌks
become fat	*pʌ·
begin	*moh
belch	*?ʌ?y
believe	*?aŋhám
bite	*was
blow	*suh

Verbs—Continued	
boil	*yu·m
borrow	*nuks
break	*kiť
bud	*ɸu?m
burn	*no?
burn (with large flame)	*yot
carry (on head in a basket)	*ɸʌy
charge	*ɸe?k
chop down	*wʌ·t
close	*?aŋmíč
collect	*ɸek
come	*miñ
cook	*?uh
copulate	*maŋ
cough	*suks
cover	*?aŋú?ɸ
cover (with mud)	*ɸʌt
cross	*hak

Verbs—Continued	
cry	*weh
cut down	*tʌŋ
dampen	*muh
ache, hurt	*toy
anger	*ho?y
deceive	*mʌgó?y
descend	*ket
dig	*he?n
dig, excavate	*tah
drink	*?uk
drink water	*nʌ?k
drip	*wʌɸ
dry	*tʌɸ
eat	*ku?t
eat	*kʌ?s
eat (dine)	*wi?k
embrace	*nu?s
emerge	*put
enter	*tʌgʌ́y

Verbs—Continued

fall	*ɕut
fan, wave	*yem
fear	*kʌ·ŋ
feel dizzy	*su·sá·
fight	*?aŋá·
fine	*moɕ
finish	*yah
fold	*poks
fold	*mo?n
fry	*mʌ?ť
fry, cook	*se?t
gather	*piŋ
get, take	*pʌk
go	*nʌk
go along (andar)	*sʌ?
go out	*put
grasp	*maɕ
grasp	*ɕʌk
grind	*way
grow	*yo?n
harvest	*piñ
heat	*pih
hide	*nek
hide	*yam
hit, beat	*naks
hit	*yʌ?k
hunt, shoot	*tuh
jump	*mʌ?ŋ
jump	*yo?y
keep	*tu?m
kick	*nep
know	*hó?doŋ
lack	*tak
lasso, fish with a line	*suy
laugh	*šik
leave	*ɕak
lend	*kak
lick	*ne?m
lie on one's side	*mum
light	*ɕok
listen	*matóŋ
lock up	*pah
look	*?a?m
lose	*togóy
make, do	*wat
make noise	*tiñ
make tortillas	*toh
marry	*?aŋko?mʌ́?y
meet	*pat
meet together	*?aŋtu?má·
mix, stick together	*ɕah
need, want	*su·n
paint	*tok
pass	*na·s
pay	*yoh
pinch	*ɕuks
play	*mʌ·č
pluck (fruit)	*tuk
puncture	*ɕe·ŋ

Verbs—Continued

push	*yak
put on	*?akká?m
raise	*ɕa·m
remain	*ɕʌ?y
remove, undress	*ɕo?t
request, ask for	*wa?k
rest	*heh
return, turn	*se·t
revive	*pʌ·s
ripen	*kʌŋ
run	*poy
say	*nʌm
scrape	*meh
scratch	*ɕuks
search	*me?ɕ
sell	*ma?y
send	*kuɕát
serve	*tek
sew	*nu?n
shell corn	*?ʌks
shine	*ɕok
shoot (with bow and arrow)	*tʌp
sing	*wa·n
sit	*koñ
sleep	*moŋ
smell	*kʌn
smell	*su?k
sow	*ñip
speak	*hʌy
speak	*?aŋmát
spin	*piť
spit	*ɕuh
split	*we?k
split, give birth	*po?
spread out	*to?k
steal	*nu?m
stop	*te·ñ
strain, filter	*pa?
stretch out	*tʌ·m
stretch one's skin	*?oks
succeed	*wa·ŋ
suck	*tu?t
suck (as a baby), kiss	*ɕuɕ
suffer	*ya?ačá·
swell	*šiŋ
sweep	*pet
swim	*pu?n
take a walk	*ho·y
take out	*top
take out fish with a net	*mak
tell stories	*may
think	*hʌ·s
test	*kips
throw	*paɕ
tie	*ɕen
tie up	*mek
tire	*so?ps
toast	*?aŋmú?ɕ

Verbs—Continued

touch	*ɕʌk
touch lightly	*piñ
tremble	*yʌ?s
turn, return	*se·t
twist	*wi?ť
untie	*wih
vomit	*?ʌɕ
walk	*wiť
wash	*ɕe?
weave	*tak
whistle	*su·s
work	*yo·šá·
wound	*?akko?wá·
wrestle	*pak

Substantives

a little	?úšaŋ
a little while ago	ma?k
above	yúkmʌ
agave fiber (Sp. "ixtle")	náwiñ
aguardiente	?óho
alligator	úšpiñ
also	?éya
also	meš
angry	ɕó?ťi
ant	pókpok
(an) ant (Sp. "arriero")	núku
armadillo	nʌɕ
armpit	šákʌ
atole	?únu
aunt	ɕʌ́ɕʌ
back (between shoulders)	tú?ñi
bamboo (Sp. "otate")	?óhwiñ
banana	sá·mñi
basket	kó?oŋ
basket, large type	pó?po?
bat	tʌ́·ši
bean	sʌk
beard	wí·ši
bed	ɕe?s
big	mʌh
bird	hon
(a) bird (Sp. "zenzontle")	?ámay
birthmark	ɕúkťiñ
bitter	tam
black	yʌk
blanket	ɕúhmiť
blood	nʌ́?piñ
blouse	?ása
blue, green	ɕu·s
bone, seed	pak
bow	píkši
breast, teat	núnu
brother-in-law	nʌ́·mʌ
butterfly	méme

Substantives—Continued

camote	mʌn
canoe	ʔá·ha
cattle, bull	šiš
certain	mop
certain	núma
chest	ɸókwiñ
chick	ťáka
chicken	píyu
chief	ʔaŋhagóʔyi
child	ɸáˀ·ši
chile	ñíwi
circle, disk	wóyo
cloud	ʔúksʌ
cockroach	tʌ́kči
cold	súksuk
cold	págak
cold mist	mʌk
incense (Sp. "copal")	pó·ma
corpse	ɸuʔɸ
cotton	pú·ki
cradle	číča
crawfish	ʔéši
crazy	kuʔʌ́ši
crowd	púhaŋ
custard apple	yá·ťi
daughter-in-law	sá·ki
deaf-mute	ʔúma
deep	hóhmʌ
deer	mʌ́ʔa
dream	mawíñ
dust	pótpot
ear	tá·ɸʌk
earth	nas
egg	ká?npu
face	wíñpak
faded	póha
father	há·tuŋ
feces	ťiñ
fence	tá?ñi
field grass (Sp. "zacate")	mu?k
fingernail, claw	kʌ́ɸʌs
fire	húktʌ
firewood	kʌ́·pi
fish	tʌ́?pʌ
(*a*) *fish* (Sp. "mojarra")	ɸó·wi
flea	píšťʌk
flower	móya
fodder	so?k
fog	?óma
foot, leg	puy
frog, toad	nak
fruit	tʌm
(*a*) *fruit* (Sp. "pitahaya")	núčťi
fur, feather	pʌk
gift	šá·ha
ghost	ɸʌ́?yi

Substantives—Continued

godmother	?óko
good, pretty, nice	wʌ·
gopher (Sp. "tusa")	tʌ́?pič
grass	só·ťi
grass	pʌm
griddle (Sp. "comal")	?ágaŋ
guava	pátaŋ
gulley (Sp. "barranca")	?aŋhákʌ?
gum (Sp. "chicle")	ná?a
hair	way
hand	kʌ?
happy	máymay
hawk	táhpi
head	kó·bak
head tumpline (Sp. "mecapal")	ɸʌ́miš
heel	ɸʌ́hɸʌ
(*an*) *herb* (Sp. "quelite")	ɸʌ́pʌ
here	yʌ?m
heron	wóhno
hiccough	tú?ga
honey	číñu
honeycomb	?ókwoŋ
horn	wa·ŋ
horsefly	pí·ñuh
house	tʌk
hummingbird	túčťi
hunger	yú?u
intestines	pú?u
jaguar (Sp. "tigre real")	tenát
jealous	náha
joint, knee	nó?so
later	sábuy
liver, spirit	ɸókoy
lizard, large variety	pá·či
load	ɸʌ́·mi
loft (Sp. "tapanco")	kok
long ago	wíñʌk
lung	pupúsu
macaw	?á·nu
machete	té·pu
maiden	wó·ñi
maize	mok
maize for seed	?úhɸun
man	pʌ́·šiñ
many	wáťi
meat	máyi
middle, in the	mʌ́hmʌ
milpa	ká·ma
minnow	táhwiñ
mirror	té·skat
monkey	?ú·ɸu
moon	póya
mother	?á·pa
mountain	kóɸʌk
mouth	hʌp

Substantives—Continued

much	?ága
much	há?yaŋ
mud	tú?tʌ
mushrooms	nóno
name	nʌ́yi
narrow	wáyay
navel	tú·no
near	nóko
near	tó·mi
neck	kʌ́nkʌ?
nest	pé?ñi
new	máñi
night	ɸu?
nixtamal	mó?ši
no	ďa
nose	kí·ñi
now	sʌ́?ʌp
oak	soh
old	péka
owner	?ó·mi
outside	?aŋsʌ́kmʌ
palm	súyat
plain	noŋ
paper	tóto
path	tuŋ
patio	?áŋkʌ?
penis	tútu
pig	yóya
pigeon	?ákši
pinole	pó?ťi
plain	noŋ
post	kom
pot	sú?uŋ
pozole	wáyi
pus, (a) boil	pú?kʌ
rabbit	kó·ya
rain	tuh
rattle	ɸu·m
raw	ɸóko
red	ɸábaɸ
remedy	ɸoy
rock (Sp. "peña")	téhah
root	ťíčak
rubbish	pú·či
salt	kána
sand	pó?oy
sandals, Pleiades	kʌ?ak
scar	sas
sharp	ɸú·pa
shirt	yó?ťi
shrimp	ɸas
sibling	tʌ́·wʌ
skin	náka
skirt	tékši
sky, fiesta	sʌŋ
small	šúťu
smallpox	núku?
snake	ɸa·ñ
snail	súťi

Substantives—Continued

snail, large variety	šó·ki
soft	pon
son	mánʌk
son-in-law	mʌ́ʔʌt
spindle whorl	šǐ·ku
squash	pá·suŋ
squirrel	kúʔnki
stone	ɬaʔ
stone wall	táʔñi
strong	pʌ́·mi
stupid	ʔáksʌ
sun, day	háma
sweet	páʔak
swift	pʌ́mi
tail	tuʔɬ
tall, long	yágaɬ
tarantula	ʔá·mu
that	peʔm
thick	tʌ́ʔʌɬ
thin, shallow	čéhče
this (one)	yʌ́ʔp
tobacco	ɬʌ́·wi

Substantives—Continued

tongue	toɬ
tooth	tʌɬ
tortilla	ʔá·ñi
tortoise	ťú·ki
town	a·tébet
tree	kuy
tree cotton (Sp. "pochote")	pišťíñ
tree gourd (Sp. "guaje")	pok
tree gourd (Sp. "jícara")	hé·pe
trousers	nókkuy
turkey	túʔnuk
turtle	ťúki
twins	mé·či
uncle	ʔá·či
urine	ɬem
very, much	ɬam
vine	ɬay
vulture	núʔpu

Substantives—Continued

waist	muh
wall	méʔši
warm	hókoš
wasp	wéʔnʌk
water	nʌʔ
waterfall	táʔksʌ
wax	náyi
(a) well	mú·tʌ
whirlwind	súkum
white	pópo
wildcat (Sp. "tigre")	kaŋ
wind	sáwa
wing	šah
witchcraft	kutʌ́ʔči
woman	yó·mo
wood tick	pá·ñʌk
worm	ɬúʔkiñ
year	ʔámťu
yellow	púʔuč
yes	hʌ
yesterday	matʌ́k

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